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PART B

SOLAR - GEOPHYSICAL DATA

ISSUED

MAY 1962

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

CRPL-F 213
PART B

NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

Issued
31 May 1962

SOLAR - GEOPHYSICAL DATA

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The descriptive text was republished November 1961.
Addenda to the text were published February 1962.

Mar. 1962	American Relative Sunspot Numbers $R_{A'}$
1	80
2	76
3	51
4	21
5	21
6	29
7	21
8	23
9	4
10	0
11	0
12	8
13	15
14	14
15	16
16	24
17	25
18	29
19	56
20	55
21	69
22	68
23	60
24	45
25	49
26	46
27	38
28	27
29	25
30	32
31	26
Mean:	34.0

Apr. 1962	Zürich Provisional Relative Sunspot Numbers R_Z	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	37	88
2	31	83
3	30	80
4	24	78
5	27	76
6	21	78
7	23	77
8	22	77
9	15	78
10	10	81
11	21	88
12	35	93
13	55	102
14	75	110
15	84	111
16	90	119
17	86	114
18	66	110
19	71	109
20	72	109
21	75	112
22	78	113
23	75	108
24	46	105
25	36	101
26	32	100
27	32	100
28	41	96
29	44	93
30	34	91
31		
Mean:	46.3	96.0

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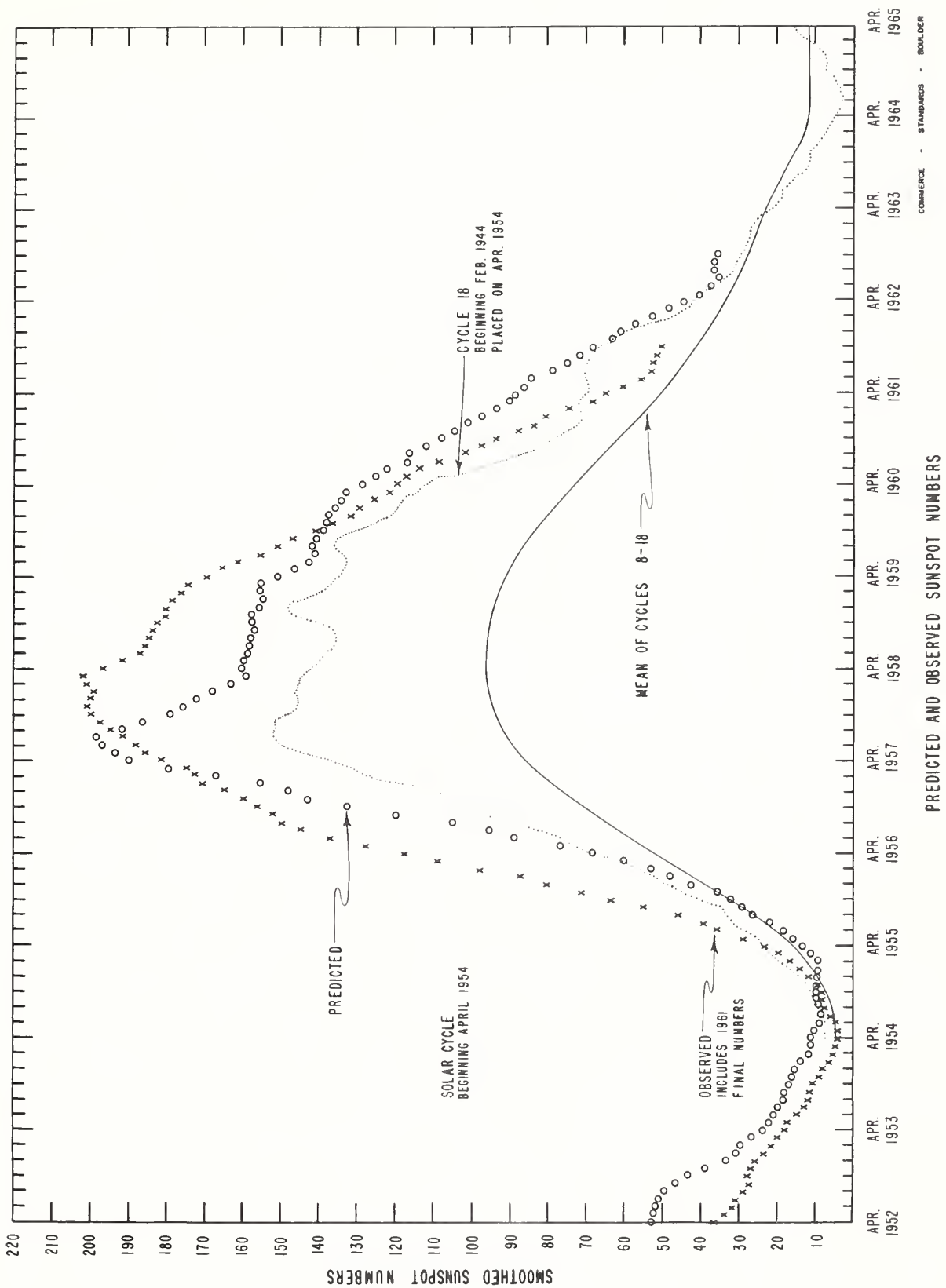

PREDICTED AND OBSERVED SUNSPOT NUMBERS

CALCIUM PLAGE AND SUNSPOT REGIONS

APRIL 1962

CMP Apr. 1962	Lat	McMath Plage Number	Return of Region	Calcium Plage Data				Sunspot Data		
				CMP Values Area	Int.	History, Age		CMP Values Area	Count	History
02.0	N1[illegible]	6382	New	(400)	(2.5)	b ⌐ ℓ	1			
03.6	S07	6379	6357	1000	3	ℓ — ℓ	2	100	3	ℓ — ℓ
03.7	N07	6380	6358	400	1.5	ℓ — ℓ	2			
04.2	S37	6383	*	(200)	(2)	b ⌐ d	1			
04.4	N14	6385	New	(900)	(3)	b / ℓ	1	(60)	(2)	b / ℓ
06.0	N04	6381	*	400	1	ℓ ¬ d	1			
08.1	S14	6390	New	(100)	(2)	b ⌐ ℓ	1			
09.6	N05	6387	*	300	1	b ⌐ d	1			
12.0	S12	6384	New	600	2.5	ℓ — ℓ	1			
14.1	N11	6386	6366	2400	3	ℓ — ℓ	2	480	7	ℓ — ℓ
14.4	S01	6388	*	1000	1.5	b \ ℓ	1			
15.7	N15	6389	6368	600	1.5	ℓ — ℓ	8			
17.8	S07	6391	New	1500	3	ℓ \ ℓ	1	20	2	ℓ ¬ d
18.0	N25	6392	New	500	2	ℓ — ℓ	1			
19.0	N10	6393	6370	4700	3	ℓ — ℓ	4	480	13	ℓ — ℓ
20.0	S10	6394	6369	1200	2.5	ℓ — ℓ	3			
20.7	N08	6395	6373	3900	2.5	ℓ — ℓ	4	70	2	ℓ ¬ d
21.0	S10	6396	6369	800	2	ℓ — ℓ	3			
22.1	S14	6397	6369	1500	3	ℓ — ℓ	3	220	3	b ⌐ d
22.2	N13	6398	6373	3800	3	ℓ — ℓ	4			
23.9	S17	6399	*	200	1	b ⌐ d	1			
24.4	N02	6409	*	(200)	(1.5)	b ⌐ ℓ	1			
26.1	N02	6400	6377	400	1.5	ℓ — ℓ	2			
27.5	S18	6402	6378	600	1	ℓ ¬ d	2			
27.7	N06	6401	6377	600	1.5	ℓ ¬ d	2			
29.5	N11	6406	New	400	2	b ⌐ ℓ	1			
29.7	S15	6410	*	100	1.5	b ⌐ d	1			

*New and Ephemeral.

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APRIL 1962

Apr. 1962	Time Meas.	Lat.	Mer. Dist.	Type	Apr. 1962	Time Meas.	Lat.	Mer. Dist.	Type
1	1935	N16	W29	αp	15	1725	N10	W18	βγ
		N07	W17	βf			S08	E25	βp
		S06	E21	βp			N07	E36	αp
							N10	E47	βf
2	1945	N07	W31	β			N10	E70	βp
		S06	E06	βp					
					16	2305	N10	W35	βf
3	1715	N07	W43	βf			S08	E10	αp
		S06	W06	βp			N06	E21	αp
							N09	E30	βγ
4	1925	N07	W57	βp			N09	E53	βp
		S07	W22	βp					
					17	1740	N10	W45	βf
5	1625	N07	W70	βp			S10	E03	αf
		S07	W36	αp			N06	E10	βp
							N08	E20	γ
8	1825	N11	W58	β			N10	E43	βp
9	2245	N11	W73	βp	27	2405	N09	E42	γ
11	1815	N11	E38	γ	28	1720	N10	E13	αp
							N09	E33	βγ
12	1635	N10	E24	γ					
		S08	E68	βf	29	1710	N09	E20	βγ
		N08	E80	αp					
					30	1840	S06	E04	βf
13	1715	N10	E08	βγ			N09	E05	βγ
		S09	E54	βp			N20	E76	βf
		N07	E64	βp					
		N10	E76	βf					
14	2345	N10	W10	γ					
		S08	E35	αp					
		N07	E47	αf					
		N10	E57	βf					
		N10	E80	αp					

COMMERCE - STANDARDS - BOULDER

FINAL CORONAL LINE EMISSION INDICES

JANUARY 1962

CMP Jan 1962	North East Quadrant (observed 7 days earlier)				South East Quadrant (observed 7 days earlier)				South West Quadrant (observed 7 days later)				North West Quadrant (observed 7 days later)			
	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1
1	57	104	42a	120a	21	25	12a	18a	23	29	4	6	36	61	7	11
2	45	72	x	x	11	12	x	x	x	x	4	6	x	x	1	2
3	31	48	x	x	7	10	x	x	7	11	17	28	18	20	21	24
4	15	26	19	32	4	6	16	20	10	11	3	4	19	25	12	30
5	23	36	19	30	5	6	19	37	7	14	17	32	14	20	14	22
	27	40	14	20	5	10	11	12	11	18	8	11	33	49	10	21
7	x	x	5	8	x	x	8	8	8	11	8	9	40	57	7	11
8	40	56	15a	40a	9	14	17a	24a	10	28	15	25	42	64	24	40
9	36	84	31a	60a	7	11	28a	33a	14	28	18a	34a	53	106	22a	36a
10	29	31	14	16	14	22	24	44	20	32	12	17	43	64	12	31
11	6a	8a	5	7	1	2	5	5	22	35	7	11	37	60	10	19
12	x	x	x	x	x	x	x	x	17	24	7	11	20	24	4	8
13	x	x	x	x	x	x	x	x	5	6	11	15	9	12	12	17
14	19	24	5	9	17	25	7	15	18	21	x	x	27	30	x	x
15	17	19	5	9	14	18	3	5	3	5	7	10	4	6	8	10
16	x	x	x	x	x	x	x	x	8	11	7	9	15	20	7	11
17	31	34	12	20	8	11	12	18	9	14	31	32	29	62	38	61
18	53	148	12	20	11	22	7	10	x	x	x	x	x	x	x	x
19	64	165	5a	14a	12	17	5a	10a	12	20	31	49	46	92	31	54
20	49	83	8	11	17	22	11	21	14	26	22	27	27	40	17	32
21	47	68	10	23	34	46	9	12	35	62	23	33	45	62	13	17
22	35	66	9	15	34	64	17	35	33	47	12	17	38	46	8	15
23	77	118	13a	26a	24	42	19a	26a	25	40	15	25	52	72	20	57
24	70	98	7	17	40	66	6	7	25	34	x	x	52	64	x	x
25	61	81	4	8	33	39	4	7	37	48	6	7	29	36	7	27
26	56	69	2	11	32	50	5	9	43	55	3	6	52	65	3	7
27	25	41	14	22	14	20	11	15	13	16	10	12	32	76	12	27
28	85	138	x	x	44	62	x	x	29	36	x	x	55	100	x	x
29	31	61	19	47	5	8	9	12	33	53	x	x	53	101	x	x
30	38	84	23	48	12	17	7	9	32	48	22	33	43	56	12	15
31	31	50	39	57	25	76	35	64	19	40	12	26	51	129	16	47

COMMERCE - STANDARDS - BOULDER

x = no observations a = index computed from low weight data * = yellow line observed

FINAL CORONAL LINE EMISSION INDICES

FEBRUARY 1962

CMP Feb 1962	North East Quadrant (observed 7 days earlier)				South East Quadrant (observed 7 days earlier)				South West Quadrant (observed 7 days later)				North West Quadrant (observed 7 days later)			
	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1
1	x	x	x	x	x	x	x	x	20	34	11	14	23	34	7	8
2	36	64	12	14	8	17	13	21	6	8	20	25	10	12	19	25
3	14	30	20	49	4	8	11	15	9	20	8	9	48	92	13	25
4	40	64	40	64	7	8	22	25	9	28	15	35	14	55	17	27
5	29	65	18	42	5	8	13	15	x	x	x	x	x	x	x	x
6	24	51	29	70	3	6	25	35	x	x	x	x	x	x	x	x
7	21	31	22a	32a	7	8	27a	37a	9	13	x	x	24	39	x	x
8	8	11	24	25	15	20	16	22	8	11	9	12	10	14	11	15
9	6	8	28	32	3	6	28	37	x	x	x	x	x	x	x	x
10	5	6	12	15	2	4	12	15	x	x	x	x	x	x	x	x
11	16	20	24	32	16	22	18	27	6	8	10	18	12	14	14	24
12	11	14	x	x	12	14	x	x	12	17	13	16	x	x	18	24
13	13	17	14	16	8	11	13	16	10	13	7	9	14	18	11	14
14	26	37	7	10	12	14	8	9	12	15	9	12	26	38	12	18
15	30	59	11	28	10	11	7	11	13	17	14	17	40	63	14	20
16	18	56	15	27	5	8	14	20	6	8	12	15	13	24	11	20
17	72	143	12	21	25	56	6	10	x	x	x	x	x	x	x	x
18	47	76	13	22	25	50	10	12	x	x	x	x	x	x	x	x
19	x	x	x	x	x	x	x	x	6	15	9	13	28	48	5	7
20	x	x	x	x	x	x	x	x	6	16	10	20	12	16	6	10
21	134	215	x	x	29	37	x	x	10	45	x	x	20	32	x	x
22	55	64	8	10	26	39	8	10	16	32	5	5	30	40	7	10
23	x	x	x	x	x	x	x	x	30	60	13	20	30	58	8	10
24	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
25	41	66	10	24	57	98	31	46	85	115	42	89	67	104	33	108
26	42	57	21	66	70	99	32	71	65	89	22	40	58	85	11	22
27	40	56	19	38	65	98	25	36	39	56	x	x	36	76	x	x
28	30	38	12	18	34	55	13	16	33	37	7	17	38	53	6	10

COMMERCE - STANDARDS - BOULDER

x = no observations a = index computed from low weight data * = yellow line observed

FINAL CORONAL LINE EMISSION INDICES

MARCH 1962

CMP Mar 1962	North East Quadrant (observed 7 days earlier)				South East Quadrant (observed 7 days earlier)				South West Quadrant (observed 7 days later)				North West Quadrant (observed 7 days later)			
	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1
1	27	31	17	24	22	35	14	18	19	26	6	10	32	36	6	8
2	8	20	22	35	4	8	12	15	x	x	x	x	x	x	x	x
3	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
5	15	44	26	70	3	6	18	25	12	15	11	15	14	25	14	25
6	6	8	13	25	2	4	11	20	x	x	x	x	x	x	x	x
7	5	6	x	x	5	10	x	x	9	20	x	x	15	38	x	x
8	9	12	8	15	7	20	8	12	7	11	6	10	11	16	7	13
9	5	8	7	10	5	8	9	15	3	3	20	32	8	11	29	39
10	x	x	x	x	x	x	x	x	30	42	5	8	16	30	6	8
11	10a	14a	11a	16a	6a	6a	11a	13a	2	4	10	12	2	4	19	25
12	14	17	6	9	8	9	7	8	3	6	24a	28a	10	11	26a	37a
13	10	17	x	x	5	6	x	x	x	x	x	x	x	x	x	x
14	32	36	6	8	16	19	7	9	5	8	5	5	8	10	3	5
15	25	35	6	10	14	20	7	15	20	26	x	x	38	49	x	x
16	x	x	x	x	x	x	x	x	23	29	11	15	38	55	11	15
17	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
18	x	x	x	x	x	x	x	x	25	34	5	7	46	56	9	15
19	16	20	10	12	6	13	12	17	15	31	15a	20a	44	90	13a	20a
20	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
21	38	54	x	x	26	29	x	x	13a	30a	20a	26a	32a	36a	26a	60a
22	43	58	7	15	35	43	8	24	4	6	13	20	5	8	18	32
23	55	81	19a	36a	40	59	28a	44a	x	x	x	x	x	x	x	x
24	14	25	8	10	19	40	7	10	12	14	19	30	13	16	16	27
25	8	10	5	5	5	12	5	5	49	67	22	40	77	109	25	40
26	49	81	48a	95a	28	50	46a	98a	x	x	x	x	x	x	x	x
27	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
28	11	14	5	7	5	6	4	5	x	x	x	x	x	x	x	x
29	48	67	x	x	29	53	x	x	x	x	x	x	x	x	x	x
30	57	87	15	20	37	60	28	40	19	42	18	42	32	42	33	42
31	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

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x = no observations a = index computed from low weight data * = yellow line observed

PROVISIONAL CORONAL LINE EMISSION INDICES

APRIL 1962

CMP Apr 1962	North East Quadrant (observed 7 days earlier)				South East Quadrant (observed 7 days earlier)				South West Quadrant (observed 7 days later)				North West Quadrant (observed 7 days later)			
	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1	G_6	G_1	R_6	R_1
1	18a	31a	7	12	16a	22a	16	22	x	x	x	x	x	x	x	x
2	20	53	8a	14a	14	36	12a	18a	18	36	x	x	24	63	x	x
3	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4	4	14	22a	36a	5	8	18a	24a	x	x	5	8	x	x	16	28
5	7	8	6	7	5	8	3	5	12	20	31	39	22	39	18	24
6	x	x	x	x	x	x	x	x	7	11	30a	44a	15	17	25a	40a
7	3	4	11	15	3	4	14	16	4	8	18a	42a	6	8	14a	20a
8	9	11	25	25	6	6	21	22	2	8	21	31	9	14	43	57
9	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
10	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
11	x	x	x	x	x	x	x	x	15	39	12	16	14	25	19	27
12	x	x	x	x	x	x	x	x	6	8	8a	10a	18	25	13a	18a
13	x	x	x	x	x	x	x	x	6	17	5	8	24	45	6	10
14	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
15	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
16	11	22	x	x	34	42	x	x	18	45	24a	38a	57	76	10a	20a
17	x	x	x	x	x	x	x	x	29	78	x	x	101	118	x	x
18	x	x	10	14	x	x	15	18	31	70	x	x	84	109	x	x
19	83	124	57	90	38	87	29	54	x	x	x	x	x	x	x	x
20	118	193	14a	24a	54	90	13a	18a	36	73	x	x	50	76	x	x
21	61	98	x	x	59	98	x	x	x	x	x	x	x	x	x	x
22	59	90	x	x	39	76	x	x	x	x	x	x	x	x	x	x
23	x	x	x	x	x	x	x	x	11a	20a	9a	12a	28a	72a	8a	10a
24	x	x	x	x	x	x	x	x	8	17	x	x	28	36	11a	24a
25	21	25	12	16	9	11	14	18	24a	36a	x	x	12a	17a	x	x
26	13a	22a	13a	18a	13a	20a	15a	18a	x	x	x	x	x	x	x	x
27	25	50	2	4	14	22	8	14	x	x	x	x	x	x	x	x
28	x	x	x	x	x	x	x	x	17	22	x	x	53	174	x	x
29	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
30	28	42	13	20	14	31	11	20	x	x	x	x	x	x	x	x

x = no observations a = index computed from low weight data * = yellow line observed

SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME START	END	MAX PHASE	LOCATION APPROX LAT.	MER. DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS. AREA Sq. Deg	CORR. AREA Sq. Deg	MAX. WIDTH Hα	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
	01	0115	0230	NO FLARE REPORT												
	01	0300	0315	NO FLARE REPORT												
LOCKHEED	01	1654	1710	1658	N15	W25			1-	1	1658	.50	.50		10	
SAC PEAK	01	1729	1747	1738	S09	E20			1-	3		1.22	1.20		20	G-SWF
LOCKHEED	01	1732	1747	1737	S08	E21			1-	1	1737	.80	.80		10	
SAC PEAK	01	1917	1925	1920	S09	E19			1-	3		.89	.87		16	
LOCKHEED	01	2202	2216	2208	N06	W90			1-	2	2208	.20	1.00		10	
	02	0115	0200	NO FLARE REPORT												
	02	0630	0645	NO FLARE REPORT												
	02	1030	1115	NO FLARE REPORT												
	02	1130	1230	NO FLARE REPORT												
HONOLULU	02	2352	0008	0000	N10	W30			1-	3	0000	.41	.42			
SAC PEAK	02	2357	0003	2400	N08	W31			1-	2		.12	.14		18	
	03	0200	0530	NO FLARE REPORT												
WENDEL	03	1004 E	1009 D		N04	W40			1-							
MCMATH	03	2154	2213	2202	S16	W46	6378		1-	2	2202	.20	.30			
HONOLULU	04	0100 E	0150 D	0140	N07	W27			1-	2	0140	1.24	1.24			
	04	0200	0245	NO FLARE REPORT												
	04	0300	0800	NO FLARE REPORT												
	04	0815	0900	NO FLARE REPORT												
	04	1200	1445	NO FLARE REPORT												
	04	1645	1730	NO FLARE REPORT												
HONOLULU	04	1840	1946 D		S09	W58			1-	2	1910	.41	.62			
	05	0200	1315	NO FLARE REPORT												
	05	1345	1400	NO FLARE REPORT												
LOCKHEED	05	2148	2159	2152	S09	W39			1-	2	2152	.20	.20		20	
	06	0200	0315	NO FLARE REPORT												
CAPRI S	06	0853 E	0917		S06	W43	6379	24 D	1	2	0909	1.60	2.20			
ARCETRI	06	0900 E			S08	W45			1-	2						
	06	0930	1300	NO FLARE REPORT												
	06	1530	1545	NO FLARE REPORT												
LOCKHEED	06	1832 E	1840	1834	N11	W31			1-	2	1834	.50	.60		10	
HONOLULU	06	2130	2150	2138	N12	W32			1-	1	2138	.31	.34			
LOCKHEED	06	2210	2223	2214	S06	W52			1-	2	2214	.30	.40		20	
LOCKHEED	06	2225	2304	2234	S20	E75	6384	39	1	2	2234	1.50	3.00		20	
HONOLULU	06	2230 E	0020 D	2240	S13	E70	6384	110 D	1	1	2240	1.96	3.64			
	07	0130	0400	NO FLARE REPORT												
MCMATH	07	1355	1505		N09	W42	6385		1-	2	1410	.30	.50			
MCMATH	07	1542 E	1617 D	1548	N09	W42	6385		1-	1	1548	.40	.60			
MCMATH	07	1819 E	1906	1822	N09	W43	6385	47 D	1+	2	1822	1.80	3.50			
MCMATH	07	1933	2025	1950	N10	W44	6385		1-	2	2000	.80	1.50			
MCMATH	07	1933	2025	2000	N10	W44			1-							
MCMATH	07	2050 E	2147 D		N10	W45	6385		1-	2	2056	1.00	1.80			
	08	0000	0015	NO FLARE REPORT												

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	08	0030	0045	NO FLARE REPORT												
	08	0200	0245	NO FLARE REPORT												
	08	0345	0400	NO FLARE REPORT												
	08	0600	0615	NO FLARE REPORT												
WENDEL	08	0953 E	1006 D		N11	W48			1-							
	09	0230	0245	NO FLARE REPORT												
	09	0300	0345	NO FLARE REPORT												
	09	0430	0500	NO FLARE REPORT												
	09	0545	0600	NO FLARE REPORT												
	09	0730	0830	NO FLARE REPORT												
	09	0845	0915	NO FLARE REPORT												
	09	0930	0945	NO FLARE REPORT												
	09	1000	1045	NO FLARE REPORT												
	10	0345	0415	NO FLARE REPORT												
ONDREJOV	10	0705	0732		N12	W75	6385	27	1	1						
	10	0845	0900	NO FLARE REPORT												
	10	0915	0930	NO FLARE REPORT												
	10	1000	1030	NO FLARE REPORT												
	11	0230	0245	NO FLARE REPORT												
	11	0515	0530	NO FLARE REPORT												
	12	0000	0015	NO FLARE REPORT												
	12	0045	0100	NO FLARE REPORT												
	12	0115	0130	NO FLARE REPORT												
	12	0215	0230	NO FLARE REPORT												
	12	0445	0530	NO FLARE REPORT												
WENDEL	12	0645 E	0705 D		N10	E27	6386	20 D	1				3.00			
WENDEL	12	0851 E	0901 D		N09	E31			1-							
ARCETRI	12	0853 E	0905 D		N06	E67	6393	12 D	1	3						
ARCETRI	12	0853 E	0905 D		N08	E75	6393	12 D	1	3						
CAPRI S	12	1129 E	1152		N09	E27			1-	2	1130	1.00	1.20			
WENDEL	12	1137 E	1143 D		N10	E24	6386	6 D	1				4.00			
SAC PEAK	12	1426	1436	1430	N06	E90			1-	3		.56			22	
MCMATH	12	1426	1439	1431	N07	E90	6393		1-	2	1431	.50				
SAC PEAK	12	1627	1637	1629	N25	E64			1-	3		.47	.85		19	
MCMATH	12	1740 E	1751 D	1742	N11	E21	6386		1-	1	1742	.20	.20			
SAC PEAK	12	2149	2244	2213	N11	E19	6386	55	1	3		3.47	3.51		19	
HONOLULU	12	2152	2230 D	2216	N12	E19			1-	3	2216	1.03	1.03			
	13	0145	0200	NO FLARE REPORT												
	13	0315	0400	NO FLARE REPORT												
	13	0415	0430	NO FLARE REPORT												
	13	0600	0615	NO FLARE REPORT												
	13	0630	0645	NO FLARE REPORT												
	13	0815	0845	NO FLARE REPORT												
CAPRI S	13	0851 E	0908		N07	E77	6393	17 D	2	1	0853	2.50	10.00			Slow S-SWF
	13	1045	1100	NO FLARE REPORT												
SAC PEAK	13	2117	2130	2121	N13	E10			1-	3		.58	.58		15	

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SAC PEAK	13	2253	2320	2302	N10	E04			1-	3		.74	.74		17	
HONOLULU	13	2254	2306	2257	N10	E05			1-	2	2257	1.55	1.55			
LOCKHEED	13	2257 E	2310	2259	N12	E04			1-	1	2259	.50	.50		20	
SAC PEAK	13	2302	2320	2310	N15	E52			1-	3		.62	.83		16	
LOCKHEED	13	2306 E	2340	2320 U	N18	E53			1-	1	2320	.30	.40		10	
	14	0145	0215	NO FLARE REPORT												
	14	0230	0245	NO FLARE REPORT												
KODAIKNL	14	0304 E	0307 D	0307	N06	E65			1-	1	0304	.50	1.34	1.44	114	
KODAIKNL	14	0317 E			N10	E03			1-							
	14	0330	0345	NO FLARE REPORT												
	14	0400	1030	NO FLARE REPORT												
	14	1130	1300	NO FLARE REPORT												
SALTSJOBADN	14	1219 E	1230 D	1219	N11	W07			1-	3	1219	1.00	1.10			
MCMATH	14	1300 E	1320	1302	N10	W04	6386		1-	3	1302	1.20	1.20			
MCMATH	14	1300 E	1320	1307	N10	W04			1-							
LOCKHEED	14	1614	1626	1617	N10	E61			1-	1	1617	.40	.60		10	
LOCKHEED	14	1738	1749	1742	N10	E61			1-	1	1742	.30	.50		20	
LOCKHEED	14	1910 E	2005	1924	N07	E80	6395	55 D	1	1	1924	1.40	4.10		20	
SAC PEAK	14	1914	1950	1921	N08	E90			1-	2		8.89			22	
HONOLULU	14	1918	1938 D	1922	N07	E85	6395	20 D	2	2	1922	1.86	5.56			S-SWF
MCMATH	14	1955 E	1958 D		N09	E90	6395		1-	2	1956	.20				
SAC PEAK	14	1955	2013	1956	N08	E90			1-	2		.17			23	
LOCKHEED	14	2352	0007	0000	N11	E55			1-	1	0000	.40	.60		10	
LOCKHEED	15	0025	0041	0030	N16	E39			1-	1	0030	.20	.20		10	
	15	0245	0315	NO FLARE REPORT												
KODAIKNL	15	0533 E	0548 D	0533	N05	E50	6393	15 D	1	2	0533	1.00	1.56	1.76	122	
WENDEL	15	0540 E	0615 D		N07	E53	6393	35 D	1+				6.00			
WENDEL	15	0630 E	0643 D		N07	E50			1-							
WENDEL	15	1108 E	1120 D		N08	W10			1-							
LOCKHEED	15	1630	1641	1633	N12	W15			1-	1	1633	.30	.30		10	
LOCKHEED	15	1715	1731	1720	N10	W19			1-	1	1720	.70	.70		20	
SAC PEAK	15	1719 E	1727	1721	N08	W19			1-	3		1.16	1.18		19	
LOCKHEED	15	1733	1802	1740	N09	E46			1-	1	1740	.80	1.00		10	
LOCKHEED	15	1835	1854	1845	N09	E46			1-	1	1845	.70	.90		20	
HONOLULU	15	1838	1850	1844	N08	E47			1-	3	1844	1.65	1.98			
SAC PEAK	15	1839	1845	1841	N08	E47			1-	3		.87	1.05		18	
SAC PEAK	15	1929	2007	1951	N09	W22	6386	38	1	3		2.06	2.08		24	
HONOLULU	15	1932 E	1938	1932	N07	W21			1-	2	1938	1.55	1.55			
HONOLULU	15	1942	1956 D	1950	N07	W21			1-	2	1950	1.34	1.34			
LOCKHEED	15	1930	2011	1951	N10	E21			1-	1	1951	.70	.70		30	
SAC PEAK	15	2051	2058	2053	N11	W22			1-	3		2.02	2.04		21	
HONOLULU	15	2052 E	2056	2052	N07	W22			1-	2	2052	1.65	1.65			
SAC PEAK	15	2153	2158	2155	N10	W22			1-	3		.60	.62		20	
HONOLULU	15	2156 E	2200	2156	N06	W21			1-	2	2156	1.24	1.24			
SAC PEAK	15	2241	2252	2245	N10	W23	6386	11	1	3		2.60	2.66		22	
HONOLULU	15	2244 E	2250	2244	N07	W22			1-	2	2244	1.45	1.45			
SAC PEAK	15	2329	2343 D	2341 U	N11	W24			1-	3		1.03	1.05		19	
	16	0130	0145	NO FLARE REPORT												

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KODAIKNL	16	0235 E	0240 D		N08	W24			1-	2	0237	.50	.56	1.48	114	
KODAIKNL	16	0318 E	0320 D	0318	N08	W24			1-	2	0318	.25	.28	1.56	114	
WENDEL	16	0906 E	0922 D		N04	E61	6395	16 D	1				3.00			
CAPRI S	16	0907 E	0923		N05	E63			1-	3	0912	.90	2.00			
CAPRI S	16	0952 E	1010		N07	E36			1-	3	1009	1.00	1.30			
SALTSJOBADN	16	1005	1033 D	1010	N10	W28	6386	28 D	1	3	1010	3.00	3.40			
CAPRI S	16	1010	1028		N09	W28			1-	3	1025	1.50	1.80			
SALTSJOBADN	16	1012	1028	1020	N08	E31	6393	16	1	3	1020	1.50	1.80			
WENDEL	16	1128 E	1150 D		N08	W23	6386	22 D	1				3.00			
CAPRI S	16	1134 E	1152		N08	W25	6386	18 D	1	3	1136	3.50	4.00			
SALTSJOBADN	16	1135	1149	1140	N10	W29			1-	3	1140	1.00	1.20			
MCMATH	16	1305	1330	1313	N10	W27	6386		1-	2	1313	.40	.50			
WENDEL	16	1309 E	1337		N08	W25	6386	28 D	1				4.00			
ONDREJOV	16	1311	1316 D		N10	W26	6386	5 D	1	3						
SAC PEAK	16	1311	1330	1313	N11	W27			1-	3		.66	.68		22	
SAC PEAK	16	1727	1731	1729	N10	W32			1-	3		.29	.31		18	
SAC PEAK	16	1812	1820	1816	N08	E30			1-	3		1.82	1.92		18	
MCMATH	16	2145	2153	2147	N09	E29	6393		1-	2	2147	.50	.60			
SAC PEAK	16	2146	2154 D	2148 U	N08	E31			1-	2		.39	.43			
	16	2315	2400	NO FLARE	REPORT											
	17	0000	0015	NO FLARE	REPORT											
	17	0045	0100	NO FLARE	REPORT											
	17	0130	0145	NO FLARE	REPORT											
KODAIKNL	17	0516 E	0522 D	0516	N09	W41			1-	2	0516	.50	.70	1.72	114	
	17	0830	0845	NO FLARE	REPORT											
SAC PEAK	17	1444	1513	1446	N10	W46	6386	29	1	3		2.45	3.03		25	
SAC PEAK	17	1521	1529	1525	N03	E11			1-	3		1.24	1.22		20	
LOCKHEED	17	2243	2251	2247	N09	E14			1-	2	2247	.20	.20		10	
LOCKHEED	17	2252	2313	2256	N13	W49			1-	1	2256	1.00	1.30		20	
LOCKHEED	18	0109	0126	0115	N07	E13			1-	1	0115	.40	.40		10	
	18	0130	0145	NO FLARE	REPORT											
	18	0415	0715	NO FLARE	REPORT											
	18	0745	0900	NO FLARE	REPORT											
	18	0915	1030	NO FLARE	REPORT											
	18	1045	1230	NO FLARE	REPORT											
SAC PEAK	18	1734	2129	1804	N09	E03	6393	235	3	3		22.09	21.70		25	
LOCKHEED	18	1740	1815 D	1757	N11	E08	6393	35	1	1	1757	2.00	2.00		20	
MCMATH	18	1813 E	2013 D		N08	E04	6393	120 D	2	2	1834	8.00	8.00			G-SWF
LOCKHEED	18	1923 E	2027	1936	N12	E06	6393	64 D	1	1	1936	4.90	4.90		20	
LOCKHEED	18	2034	2056	2037	N12	W58			1-	1	2037	.40	.60		10	
SAC PEAK	18	2035	2054 U	2038	N10	W59			1-	3		.72	1.11		20	
HONOLULU	18	2146	2200	2150	N12	W57			1-	1	2150	.62	.86			
LOCKHEED	18	2147	2158	2150	N12	W58			1-	1	2150	.30	.40		10	
LOCKHEED	18	2209	2222	2211	N06	W05			1-	1	2211	.40	.40		10	
	19	0130	0215	NO FLARE	REPORT											
WENDEL	19	0716 E	0731 D		N08	W08			1-							
WENDEL	19	0748 E	0803 D		N10	W02			1-							
WENDEL	19	0856 E	0906 D		N10	W03			1-							

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WENDEL	19	0906 E	0934 D		N09	W08	6393	28 D	1				3.00			
ONDREJOV	19	0925 E	0932		N09	W10			1-	2	0925			1.70		
WENDEL	19	0929 E	1005		N07	E21	6395	36 D	1+				6.00			
ONDREJOV	19	0932 E	0951 D		N07	E20	6395	19 D	1+	3	0934			2.50		
KODAIKNL	19	0945 E	0952 D	0945	N07	E25			1-	1		.58	.66			
WENDEL	19	1139 E	1158 D		N10	W05	6393	19 D	1				3.00			
WENDEL	19	1256	1315		N11	W04	6393	19	1				3.00			
MCMATH	19	1315	1408	1330	N08	E19	6395		1-	2	1330	.70	.70			
WENDEL	19	1321	1354		N09	E19	6395	33	1+				7.00			
WENDEL	19	1508 E	1516 D		N11	W05			1-							
WENDEL	19	1556 E	1604 D		N07	W08			1-							
SAC PEAK	19	1556	1606	1557	N07	W10			1-	3		.29	.29		16	
SAC PEAK	19	1734	1818	1743	N08	W10			1-	3		3.90	3.86		20	
HONOLULU	19	1752 E	1802	1752	N08	W11			1-	2	1752	.82	.82			
SAC PEAK	19	1935	2031	1937	N08	W11	6393	56	2	3		13.28	13.10		33	S-SWF
HONOLULU	19	1936	2010	1940	N07	W09	6393	34	1	2	1940	2.90	2.90			
MCMATH	19	1944 E	2030 D		N08	W10	6393	46 D	2	2	1944	5.00	5.20			
SAC PEAK	19	1942	2000	1947	N07	E14	6395	18	2	3		12.25	12.07		29	
LOCKHEED	19	2035 E	2053	2038 U	S09	W13			1-	1	2038	1.20	1.20		10	
SAC PEAK	19	2036	2042	2039	N08	W02	6393	11	1	3		3.32	3.26		19	
MCMATH	19	2037	2041 D	2037	N09	W03	6393		1-	1	2037	.30	.30			
LOCKHEED	19	2056	2118	2105	S13	E33			1-	2	2105	.30	.30		10	
HONOLULU	19	2342 E	2350 D	2342	N07	E13			1-	2	2342	1.60	1.60			
LOCKHEED	19	2343 E	0007	2345	N09	E12			1-	1	2345	1.90	1.90		20	
LOCKHEED	20	0122	0130	0124	S12	E30			1-	2	0124	.50	.50		20	
HONOLULU	20	0128 E	0134 D	0128	N09	W30	6393	6 D	1	2	0128	2.50	2.60			
KODAIKNL	20	0233 E	0240 D	0234	N09	W14			1-	2	0234	.58	.61	1.44	114	
KODAIKNL	20	0316 E	0328 D	0316	N08	W12			1-	2		.58	.61			
WENDEL	20	0618 E	0750		N10	W14	6393	92 D	1+				7.00			
ONDREJOV	20	0719	0741	0730 U	N12	W17	6393	22	1	3	0730			2.70		
WENDEL	20	0731 E	0744 D		N07	W15			1-							
WENDEL	20	0849 E	0900 D		N10	W21			1-							
WENDEL	20	0914 E	0928 D		N07	W17			1-							
WENDEL	20	1023	1037		N10	W18	6393	14	1				3.00			
WENDEL	20	1031	1053		N07	W18	6393	22	1				3.00			
KODAIKNL	20	1035 E	1041 D	1035	N05	W10			1-	3		.58	.60			
WENDEL	20	1119 E	1134 D		N07	W20			1-							
WENDEL	20	1127 E	1139 D		N07	W18			1-							
MCMATH	20	1242 E	1310		N08	W20	6393	28 D	1	2	1242	2.90	3.20			
MCMATH	20	1314	1432	1332	N08	W20	6393	78	1	2	1332	1.30	1.40			
MCMATH	20	1314	1432	1417	N08	W20			1							
CAPRI S	20	1322	1430 D		N08	W19			1-	3	1333	1.20	1.30			
ONDREJOV	20	1327 E	1344		N11	W18	6393	17 D	1	3	1334			2.60		
SAC PEAK	20	1341 E	1435 U	1355 U	N03	W22			1-	2		1.65	1.65		20	
WENDEL	20	1400 E	1448		N08	W18	6393	48 D	1+				7.00			
WENDEL	20	1656 E	1707 D		N10	W20			1-							
HONOLULU	20	1848	1858	1852	N15	W31			1-	3	1852	.62	.68			
MCMATH	20	1920	1934	1922	N09	W25	6393		1-	2	1922	.30	.40			
LOCKHEED	20	1958	2038	2002	N10	W27	6393	40	2	2	2002	5.50	5.70		20	
MCMATH	20	1958	2040	2002	N10	W27	6393	42	2+	2	2002	7.00	9.50			S-SWF

SOLAR FLARES

APRIL 1962

OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME			LOCATION			DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER DIST.	McMATH PLAGE REGION				TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
SAC PEAK	20	1959 E	2024 U	2005 U	N04	W28	6393	25 D	2	2		9.30	9.59		30	
HONOLULU	20	2000	2026	2002	N12	W24	6393	26	2	3	2002	5.80	6.10			
LOCKHEED	20	2230	2254	2238	N09	W26			1-	2	2238	.30	.30		20	
MCMATH	20	2232	2258 D		N08	W25	6393		1-	2	2244	.40	.50			
SAC PEAK	20	2238	2246	2244	N03	W27			1-	2		.62	.64		18	
KODAIKNL	21	0203 E	0226 D	0203	N07	W26	6393	23 D	1+	3	0203	2.33	2.84	3.80	135	S-SWF
KODAIKNL	21	0506 E	0513 D		N07	W32			1-	2		.78	.95			
ONDREJOV	21	0702	0743		N07	W32	6393	41	1	3	1716			2.80		
KODAIKNL	21	0710 E	0718 D	0712	N07	W27			1-	1	0712	.58	.65	1.60	114	
WENDEL	21	0718 E	0745		N08	W28	6393	27 D	1				3.00			
ONDREJOV	21	0919 E	0930		N07	W37	6393	11 D	1	3	0924			2.50		
WENDEL	21	0921 E	0946		N10	W32	6393	25 D	1				4.00			
WENDEL	21	0931 E	0943 D		N15	W39			1-							
WENDEL	21	0931	1004 D		N07	W30	6393	33 D	1				3.00			
WENDEL	21	1039 E	1048 D		N15	W37			1-							
WENDEL	21	1039 E	1051 D		S12	E11			1-							
WENDEL	21	1145 E	1206 D		N08	W31	6393	21 D	1				4.00			
	21	1230	1300	NO FLARE REPORT												
MCMATH	21	1307	1353	1321	N08	W33	6393	46	1	2	1321	2.00	2.50			
ONDREJOV	21	1318 E	1333		N06	W33	6393	15 D	1+	3	1318			2.50		
MCMATH	21	1450	1457	1453	N08	W33	6393		1-	2	1453	1.00	1.30			
ONDREJOV	21	1507	1525 D		N14	W43			1-	2	1518			1.80		
LOCKHEED	21	1745	1800	1751	N09	W35			1-	1	1751	.40	.40		20	
MCMATH	21	1746	1749 D		N08	W34	6393		1-	1	1749	.30	.40			
LOCKHEED	21	1918	1932	1922	N04	W44			1-	2	1922	1.10	1.30		10	
SAC PEAK	21	1919	1930	1923	N06	W41			1-	2		.99	1.11		20	
SAC PEAK	21	1920	1941	1930	N08	W36			1-	2		1.44	1.61		19	
LOCKHEED	21	1921	1945	1932	N08	W36			1-	2	1932	1.60	1.80		10	
HONOLULU	21	1922	1930	1922	N05	W43			1-	2	1922	1.03	1.22			
HONOLULU	21	1930	1944	1934	N09	W36			1-	1	1934	1.03	1.18			
LOCKHEED	21	2005	2107	2013	N13	W45			1-	2	2013	1.60	1.90		10	
SAC PEAK	21	2007	2040	2013	N14	W44	6393	33	1	2		2.10	2.56		20	
HONOLULU	21	2018 E	2032 D	2018	N13	W34			1-	1	2018					
LOCKHEED	21	2221	2259	2231	N09	W40			1-	2	2231	1.00	1.10		10	
SAC PEAK	21	2257	2320	2306	N08	W41			1-	2		1.40	1.59		17	
KODAIKNL	22	0229 E	0233 D	0229	N07	W45			1-	3	0229	.33	.48	1.52	114	G-SWF
ONDREJOV	22	1255	1302		N15	W53			1-	3	1258			2.70		
WENDEL	22	1317 E	1334 D		N16	W55			1-							
MCMATH	22	1331	1340	1333	N05	W56	6393		1-	3	1333	.30	.50			
WENDEL	22	1410 E	1421 D		N13	W55	6393	11 D	1				3.00			
MCMATH	22	1430	1645	1452	N08	W50	6393	135	2+	2	1452	5.00	10.00			
SAC PEAK	22	1435	1710	1449	N08	W48	6393	155	3	3		11.30	13.88		22	Slow S-SWF
ONDREJOV	22	1440 E	1528 D	1444	N07	W48	6393	48 D	2	3	1444			3.60		
WENDEL	22	1443	1552 D	1455	N08	W48	6393	69 D	2+				16.00			
SAC PEAK	22	1546	1626	1556	N12	W48			1-	3		1.16	1.44		23	
LOCKHEED	22	1605 E	1709	1609	N09	W47	6393	64 D	1	2	1609	3.30	4.10		20	
LOCKHEED	22	1605 E	1709	1627	N09	W47			1							
MCMATH	22	1642 E	1708	1644	S13	W07	6397		1-	1	1644	.50	.50			
LOCKHEED	22	1642	1711	1656	S11	W08			1-	2	1656	.50	.50		10	

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OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME START	END	MAX PHASE	LOCATION APPROX LAT.	MER. DIST	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME U T	MEAS AREA Sq. Deg.	CORR. AREA Sq. Deg	MAX. WIDTH He	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
LOCKHEED	22	1810	1830	1818	N15	W56	6393	20	1	2	1818	1.50	2.20		10	
SAC PEAK	22	1811	1824	1815	N13	W56			1-	3		1.26	1.75		19	
SAC PEAK	22	1919	1925	1922	N06	W49			1-	3		.41	.52		19	
LOCKHEED	22	1940	1946	1943	N00	W03			1-	2	1943	.10	.10		10	
LOCKHEED	22	2044	2055	2048	N08	W49			1-	2	2048	.40	.50		10	
LOCKHEED	22	2259	2315	2307	N08	W50			1-	2	2307	.50	.50		10	
LOCKHEED	22	2359	0008	0003	S05	E05			1-	2	0003	.20	.20		10	
WENDEL	23	1336 E	1346 D		N10	W66			1-							
WENDEL	23	1349 E	1402 D		S13	W17			1-							
WENDEL	23	1357 E	1407 D		N10	W66			1-							
WENDEL	23	1430 E	1443 D		N14	W65			1-							
WENDEL	23	1453 E	1516 D		N08	W59			1-							
SAC PEAK	23	1517	1527	1519	N09	W68			1-	3		.33	.62		17	
WENDEL	23	1520 E	1528 D		N10	W63			1-							
SAC PEAK	23	1556	1603	1559	N10	W70			1-	3		.56	1.05		16	
MCMATH	23	1620 E	1750		N06	W63	6393		1-	1	1650	.30	.60			
SAC PEAK	23	1647 E	1709	1647 U	N10	W70			1-	3		.58	1.09		18	
WENDEL	23	1655 E	1704 D		N10	W71			1-							
HONOLULU	23	1854 E	1930	1908	N06	W64			1-	2	1908	.41	.66			
LOCKHEED	23	1920	1932	1924	S05	W80			1-	2	1924	.20	.60		10	
LOCKHEED	23	1944	2012	1950	N13	W70			1-	2	1950	.50	1.00		20	
SAC PEAK	23	1944	2017	1947	N13	W74	6393	33	2	3		2.45	5.20		20	
HONOLULU	23	1944	2028	1946	N12	W70	6393	44	1	2	1946	1.24	3.71			
MCMATH	23	1946	2007	1949	N13	W71	6393	21	1	2	1949	1.30	3.00			
MCMATH	23	2133	2150	2135	S13	W22	6397		1-	2	2135	1.00	1.10			
LOCKHEED	23	2257 E	2314	2303	N08	W71			1-	2	2303	.30	.60		10	
	24	0145	0230	NO FLARE REPORT												
	24	0245	0330	NO FLARE REPORT												
ONDREJOV	24	0715	0745		N14	W80	6393	30	1+	3	0725			2.10		
WENDEL	24	0723	0813		N12	W83	6393	50	1+				6.00			
CAPRI S	24	0724 E	0747 D		N12	W80	6393	23 D	1	3	0728	.40	2.40			
MCMATH	24	1209	1220	1215	N13	W88	6393		1-	2	1215	.50				
WENDEL	24	1212	1250		N13	W84	6393	38	1				3.00			
WENDEL	24	1217 E	1234 D		N08	W77			1-							
MCMATH	24	1338	1350		N11	E89	6403		1-	2	1340	.20				
ONDREJOV	24	1520 E	1532 D		N06	E90	6403	12 D	1	1	1529			1.50		
MCMATH	24	2023 E	2132 D	2028	N07	W80	6393	69 D	1	2	2028	.60				
SAC PEAK	24	2230	2246	2233	N08	W84			1-	3		.47			17	
LOCKHEED	24	2230	2400	2338	N08	W80			1-	2	2338	.30	.90		10	
LOCKHEED	24	2243	2302	2250	N14	W90			1-	2	2250	.20	1.00		20	
MCMATH	24	2248	2300 D	2250	N13	W90	6393		1-	2	2250	.20				
	25	0045	0200	NO FLARE REPORT												
ONDREJOV	25	0602	0638		N06	W90	6393	36	1+	3	0609			3.90		
WENDEL	25	0834 E	0848 D		N05	E75	6403	14 D	1				3.00			
WENDEL	25	0916 E	0947 D		N08	W87	6393	31 D	1				3.00			
WENDEL	25	1047 E	1124 D		N10	W89	6393	37 D	1				3.00			
MCMATH	25	1245	1257	1250	N08	E78	6403		1-	2	1250	.60				
MCMATH	25	1530	1543	1536	N09	E87	6403		1-	2	1536	.20				

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OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME START	END	MAX. PHASE	LOCATION APPROX. LAT.	MER. DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg	MAX. WIDTH Ha	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
MCMATH	25	1818	1825	1821	N09	W90	6393		1-	2	1821	.30				
MCMATH	25	2058	2125		N13	E67	6403		1-	2	2104	.20	.50			
MCMATH	25	2136	2150	2141	N08	E70	6403		1-	2	2141	.20	.50			
	25	2300	2400	NO FLARE REPORT												
	26	0000	0145	NO FLARE REPORT												
WENDEL	26	0532 E	0538 D		N05	E65			1-							
WENDEL	26	0715	0738 D		N07	E70	6403	23 D	1				4.00			
KODAIKNL	26	0718 E	0721 D	0718	N07	E75			1-	2	0718	.50	1.93	1.52	114	
WENDEL	26	1008 E	1013 D		N06	E66			1-							
ONDREJOV	26	1008	1015	1011	N10	E65	6403	7	1	3	1011			1.60		
ONDREJOV	26	1205 E	1231	1211	N08	E62	6403	26 D	2	3	1211			3.50		
MCMATH	26	1205	1233	1210	N06	E64	6403	28	1+	2	1210	1.70	4.00			
HONOLULU	26	1828	1840	1838	N08	E61			1-	1	1838	.41	.66			
MCMATH	26	1830	1844	1834	N10	E62	6403		1-	2	1834	.30	.70			
MCMATH	26	1846	1852	1847	S16	W68	6396		1-	2	1847	.20	.50			
	27	0145	0200	NO FLARE REPORT												
	27	0545	0600	NO FLARE REPORT												
	27	1030	1200	NO FLARE REPORT												
MCMATH	27	1350	1440	1413	N08	E48	6403	50	2	2	1413	5.20	9.00			Slow S-SWF
MCMATH	27	1647 E	1648 D		N13	E61	6405		1-	1	1648	.20	.40			
SAC PEAK	27	2246 E	2247 D	2247 U	N11	E57			1-	2		.76	1.09		18	
LOCKHEED	27	2300	2315	2305	N12	E46			1-	1	2305	.40	.50		10	
SAC PEAK	27	2306 E	2310 D	2306 U	N08	E45	6403	4	1	2		2.23	2.66		18	
	28	0045	0200	NO FLARE REPORT												
	28	0245	0330	NO FLARE REPORT												
	28	0630	0645	NO FLARE REPORT												
	28	0715	0800	NO FLARE REPORT												
	28	1000	1130	NO FLARE REPORT												
SAC PEAK	28	2023	2041	2029	N04	E29	6403	18	1	1		3.18	3.30		20	
HONOLULU	28	2032 E	2040 D	2032	N02	E28			1-	1	2032	.82	.85			
MCMATH	28	2035 E	2038 D		N03	E29	6403		1-	1	2038	.30	.30			
HONOLULU	29	0034	0148 D	0058	N09	E38			1-	2	0058	.82	.85			
	29	0230	0245	NO FLARE REPORT												
	29	0330	0400	NO FLARE REPORT												
	29	0415	0430	NO FLARE REPORT												
	29	0445	0500	NO FLARE REPORT												
	29	0515	0700	NO FLARE REPORT												
	29	0730	0815	NO FLARE REPORT												
	29	0830	0930	NO FLARE REPORT												
	29	1030	1215	NO FLARE REPORT												
MCMATH	29	1704	1732 D	1707	N13	E32	6403		1-	3	1707	.20	.20			
SAC PEAK	29	1801	1806	1803	N03	E16			1-	1		.93	.93		17	
	30	0700	0715	NO FLARE REPORT												
	30	1115	1200	NO FLARE REPORT												
MCMATH	30	1202 E	1240	1214	N12	E21	6403	38 D	1	3	1214	1.80	2.00			
SAC PEAK	30	1259	1328	1304	N11	E22	6403	29	1	3		2.31	2.35		17	

SOLAR FLARES

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OBSERVATORY	DATE APR 1962	OBSERVED UNIVERSAL TIME			LOCATION			DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS					PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER DIST	McMATH PLAGE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	
↳ MCMATH	30	1301	1340 D	1306	N12	E21	6403		1-	2	1306	1.30	1.40			
SAC PEAK	30	2209	2230	2211	N11	E16			1-	3		1.69	1.71		16	

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Errata:

Flares reported by Sacramento Peak for July 20, 1961 at 1633E-1726 and 1832E-1924U should be importance 2 instead of 3+.
These were published in CRPL-F 204B, August 1961 page IIIe.

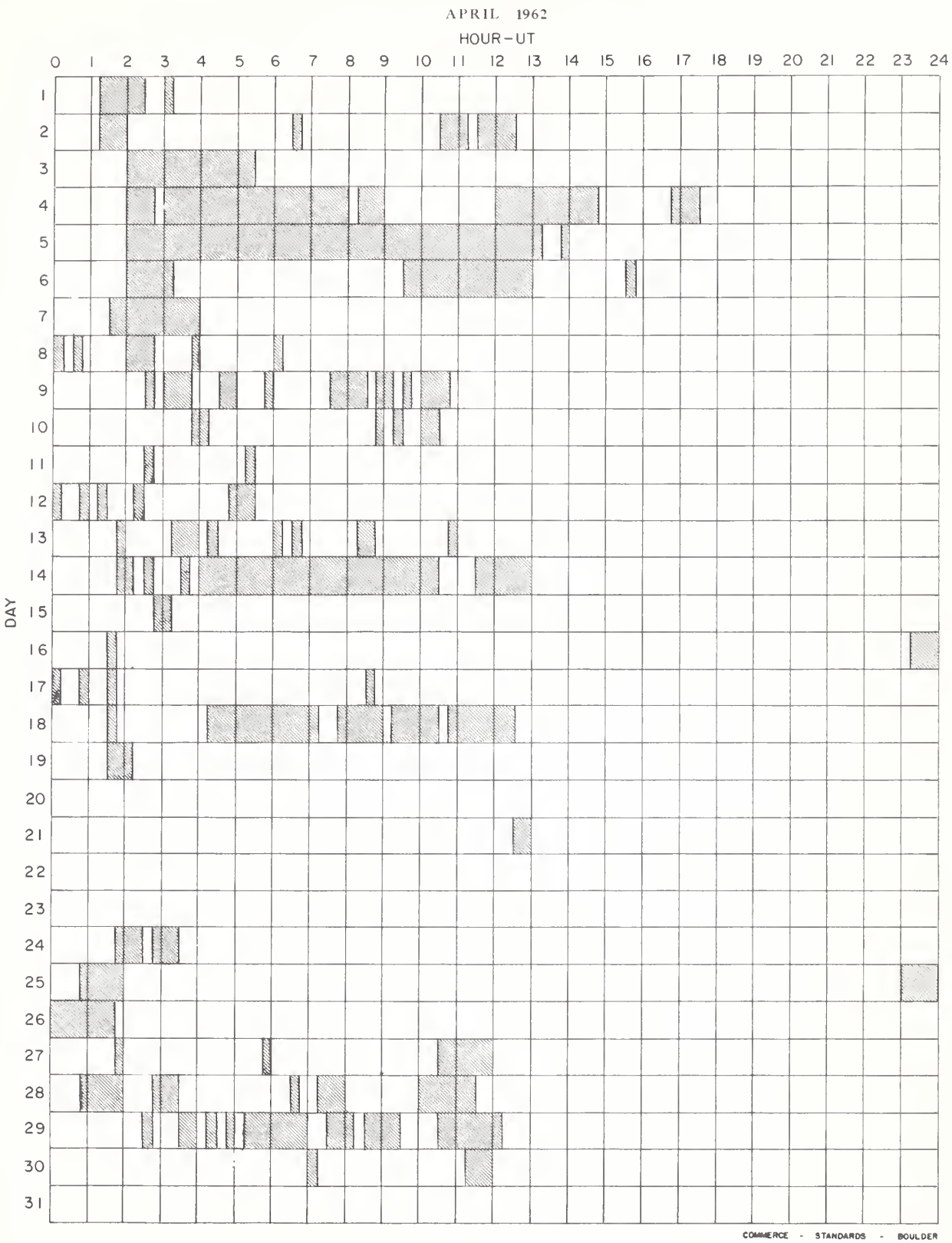
ATHENES	ATHENS, GREECE
BAKOU	PIRCULI, USSR
CAPETOWN	ROYAL OBSERVATORY, CAPE OF GOOD HOPE
CAPRI F	CAPRI, ITALY (GERMAN)
CAPRI S	CAPRI, ITALY (SWEDISH)
CRIMÉE	SIMEIZ, USSR
HERSTMONCEU	ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX, ENGLAND
HONOLULU	HAWAII, USA
IKOMASAN	KYOTO, JAPAN
KIEV KO	KIEV GAO, USSR
KIEV KY	KIEV UNIVERSITY, USSR
LOCKHEED	LOS ANGELES, CALIF., USA
MCMATH	MCMATH-HULBERT PONTIAC, MICH., USA
MOSCOU	MOSCOW-GAISH, USSR
NERA	NEDERHORST den BERGH, NETHERLANDS
NIZMIR	KRASNAYA PAKHRA, USSR
SAC PEAK	SACRAMENTO PEAK, N.MEX. USA
SALTSJÖBADEN	STOCKHOLM, SWEDEN
SCHAUINS	SCHAUINSLAND, GFR
TACHKENT	TASHKENT, USSR
WENDEL	WENDELSTEIN, GFR

ALL VALUES IN THE MAXIMUM INTENSITY COLUMN FOR SAC PEAK ARE ARBITRARY UNITS (0-40) AND FOR LOCKHEED ARE ARBITRARY UNITS (10-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

SEE DESCRIPTIVE TEXT PUBLISHED NOVEMBER 1961 FOR DEFINITION OF CORRECTED AREA VALUES LISTED FOR CLIMAX, HAWAII, LOCKHEED AND SACRAMENTO PEAK.

E = LESS THAN D = GREATER THAN U = APPROXIMATE = NOT REPORTED.

INTERVALS OF NO FLARE PATROL OBSERVATIONS



Stations Include:

Arcetri	Kodaikanal	Ondrejov
Capri (Swedish)	Lockheed	Sacramento Peak
Honolulu	McMath-Hulbert	Wendelstein

SOLAR FLARES

JANUARY 1962

OBSERVATORY	DATE JAN 1962	OBSERVED UNIVERSAL TIME START	END	MAX PHASE	LOCATION APPROX LAT.	MER DIST	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME U T	MEAS. AREA Sq Deg.	CORR. AREA Sq Deg	MAX. WIDTH Ha	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
	01	0000	0200	NO FLARE	REPORT											
	02	0030	0145	NO FLARE	REPORT											
CAPETOWN	02	0904	0930	0916	N12	W71			1-		0916	.60	1.80			
CAPETOWN	02	1055	1108	1057	N12	W71	6302	13	1		1057	.70	2.10			
	02	1315	1515	NO FLARE	REPORT											
MITAKA	03	0342 E	0355		N18	W85	6303	13 D	1	1	0345	3.93		5.34		
	04	1500	1515	NO FLARE	REPORT											
	06	1530	1615	NO FLARE	REPORT											
	06	1930	1945	NO FLARE	REPORT											
	07	0545	0615	NO FLARE	REPORT											
	07	1045	1100	NO FLARE	REPORT											
	08	0130	0145	NO FLARE	REPORT											
	09	0145	0200	NO FLARE	REPORT											
	10	0045	0130	NO FLARE	REPORT											
	10	0545	0600	NO FLARE	REPORT											
	12	1315	1345	NO FLARE	REPORT											
	12	1400	1515	NO FLARE	REPORT											
	12	2245	2345	NO FLARE	REPORT											
	13	1330	1500	NO FLARE	REPORT											
MITAKA	13	2333	0014	0001	N04	W66	6310	41	1	1	2356	.98	2.09	2.71	120	
BAKOU	14	0637 E	0656	0647	N16	E78	6319	19 D	1+	2		2.73			57	
	14	1100	1115	NO FLARE	REPORT											
	14	1430	1500	NO FLARE	REPORT											
	15	2245	2315	NO FLARE	REPORT											
NIZAMIAH	16	0340 E	0504 D	0349	N13	W79	6312	84 D	1	2	0349	3.04	14.91	1.56		
CAPETOWN	16	0633 E	0639		N12	W87	6312	6 D	1		0633	1.20				
ARCETRI	16	0810 E			N01	W80			1-	3						
CAPETOWN	16	0829	0843	0832	N12	W87			1		0832	.30				
CAPETOWN	16	0928	0958	0930	N16	E38	6319	30	1		0930	2.60	3.40			
BAKOU	16	0937 E	0950	0940	N15	E35	6319	13 D	1	3	0940	3.98	5.43		60	
BAKOU	16	1000 E	1007	1003	N16	E36	6319	7 D	1	3	1003	1.41	2.01		52	
CLIMAX	16	1554	1607	1558	N20	E23			1-			.40	.40			
	16	2315	2330	NO FLARE	REPORT											
	18	0115	0230	NO FLARE	REPORT											
	18	0245	0430	NO FLARE	REPORT											
TACHKENT	18	0501 E	0800 D	0706	N18	E86			1-	2	0706	.22	1.10	1.60	46	
	18	1200	1215	NO FLARE	REPORT											

SOLAR FLARES

JANUARY 1962

OBSERVATORY	DATE JAN 1962	OBSERVED UNIVERSAL TIME START	END	MAX PHASE	LOCATION APPROX. LAT.	MER. DIST.	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Ha	MAX. INT. %	PROVISIONAL IONOSPHERIC EFFECT
VOROSHILOV	19	0146	0201	0152	N07	E70			1-	2		•54			80	
ALMA ATA	19	0755	0835	0803	N07	E68	6324	40	1		0803	1•80			59	
VOROSHILOV	20	0122	0136	0129	N07	E56			1-	2		1•07			98	
	20	2245	2400	NO FLARE REPORT												
BAKOU	21	0857	0915 D	0904	N05	E40	6324	18 D	1+	2	0904	7•07	9•95		56	
	21	2245	2300	NO FLARE REPORT												
	22	1615	1630	NO FLARE REPORT												
CLIMAX	22	2027	2040	2028	N05	E18			1-			•70	•70			
	23	0215	0230	NO FLARE REPORT												
	23	1445	1515	NO FLARE REPORT												
	23	2100	2115	NO FLARE REPORT												
	23	2145	2200	NO FLARE REPORT												
	23	2230	2330	NO FLARE REPORT												
VOROSHILOV	24	0159	0207 D	0201	N10	E80	6326	8 D	1	2		•80			78	
CLIMAX	24	1608	1614	1610	N18	E65			1-			•30	•50			
CLIMAX	24	1703	1721	1713	N11	E70			1-			•40	•70			
CAPETOWN	25	1327	1338	1328	N21	W11			1-		1328	1•00	1•10			
	25	1530	1615	NO FLARE REPORT												
	25	1630	1645	NO FLARE REPORT												
	25	1745	1800	NO FLARE REPORT												
	25	1915	1930	NO FLARE REPORT												
ALMA ATA	26	0833	0844	0838	N10	E48	6326	11	1		0838	1•41			54	
ALMA ATA	27	0429	0432	0430	N22	W32			1-		0430	•62			57	
KIEV KO	27	1016 E	1026 D	1018	N23	W37	6325	10 D	1	1	1018	1•55				
CAPETOWN	27	1016	1036	1019	N21	W34			1-		1019	•90	1•20			
CAPRI F	27	1020 E	1039	1022	N19	W35	6325	19 D	1	2	1022	2•00	3•00			
CAPRI F	27	1428 E	1436 D	1430	N12	E24	6326	8 D	1	2	1430	3•00	3•00			
CLIMAX	27	1613	1618	1614	N12	E22			1-			•20	•20			
CAPETOWN	28	1221	1302	1226	N11	E15	6326	41	1		1226	2•10	2•30			
	28	1445	1515	NO FLARE REPORT												
CLIMAX	28	2048	2140	2102	N05	W53			1-			•50	•70			
CLIMAX	28	2137	2154	2144	N10	E11			1-			•90	•90			
CLIMAX	28	2214	2228 D	2217	N18	E22			1-			•60	•60			
MITAKA	29	0048	0107	0053	N05	W53	6324	19	1	1	0102	1•47	2•50	2•38	107	
MITAKA	29	0255 E	0259	0257	N10	E13	6326	4 D	1	1	0257	1•18	1•26	4•12	120	
VOROSHILOV	29	0256	0259	0258	N10	E12			1-	2		•54			81	
	29	0645	0700	NO FLARE REPORT												
CLIMAX	29	1655	1707		N06	W67			1-			•20	•30			
MITAKA	30	0043 E	0112	0043	N09	W02	6326	29 D	1	1	0043	2•26	2•35	2•49	149	
MITAKA	30	0415 E	0434	0420	N09	W04	6326	19 D	1	1	0415	1•97	2•05	3•48	107	

SOLAR FLARES

JANUARY 1962

OBSERVATORY	DATE JAN 1962	OBSERVED UNIVERSAL TIME START	END	MAX PHASE	LOCATION APPROX. LAT.	MER DIST	McMATH PLAGE REGION	DURATION — MINUTES	IMPORTANCE	OBS. COND.	MEASUREMENTS TIME — U T	MEAS AREA Sq Deg	CORR. AREA Sq Deg.	MAX. WIDTH Ha	MAX INT. %	PROVISIONAL IONOSPHERIC EFFECT
ALMA ATA	30	0415	0435	0417	N10	W03			1-		0417	.80			52	
ALMA ATA	30	0418	0445	0422	N09	W09			1-		0422	.50			53	
CLIMAX	30	1818	1822	1820	N11	W12			1-			.10	.10			
MITAKA	31	0039 E	0044		N09	W15	6326	5 D	1	1	0039	1.77	1.89	2.49	96	
MITAKA	31	0122	0134	0125	N08	W15	6326	12	1	1	0127	.98	1.03	2.09	107	
ALMA ATA	31	0822	0835	0824	N11	W21			1-		0824	.91			55	
CAPETOWN	31	1133	1257	1135	N12	W23	6326	84	1		1148	1.60	1.80			
CAPETOWN	31	1133	1257	1148	N12	W23			1							
KIEV KO	31	1141 E	1202 D	1147	N12	W23	6326	21 D	1+	1	1147	3.09				
CAPRI F	31	1150 E	1240 D	1152	N11	W22	6326	50 D	1	2	1152	3.00	3.00			
CAPETOWN	31	1329	1431	1352	N12	W23	6326	62	1		1352	1.40	1.60			
CAPETOWN	31	1441	1454 D	1443	N13	W32			1-		1443	1.20	1.50			
CAPRI F	31	1447 E	1502 D	1449	N11	W24	6326	15 D	1	2	1449	4.00	5.00			
CLIMAX	31	1533	1551	1539	N11	W30	6326	18	1			2.00	2.20			
CLIMAX	31	1625	1651	1630	N10	W35			1-			.30	.30			
CLIMAX	31	1850	1920	1853	N10	W37			1-			1.30	1.40			

COMMERCE - STANDARDS - BOULDER

These flare reports are addenda to the January 1962 flares published in CRPL-F 210 Part B, February 1962.

ATHENES	ATHENS, GREECE
BAKOU	PIRCULI, USSR
CAPETOWN	ROYAL OBSERVATORY, CAPE OF GOOD HOPE
CAPRI F	CAPRI, ITALY (GERMAN)
CAPRI S	CAPRI, ITALY (SWEDISH)
CRIMÉE	SIMEIZ, USSR
HERSTMONCEU	ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX, ENGLAND
HONOLULU	HAWAII, USA
IKOMASAN	KYOTO, JAPAN
KIEV KO	KIEV GAO, USSR
KIEV KY	KIEV UNIVERSITY, USSR
LOCKHEED	LOS ANGELES, CALIF., USA
MCMATH	MCMATH-HULBERT PONTIAC, MICH., USA
MOSCOU	MOSCOW-GAISH, USSR
NERA	NEDERHORST den BERGH, NETHERLANDS
NIZMIR	KRASNAYA PAKHRA, USSR
SAC PEAK	SACRAMENTO PEAK, N.MEX. USA
SALTSJÖBADEN	STOCKHOLM, SWEDEN
SCHAUINS	SCHAUINSLAND, GFR
TACHKENT	TASHKENT, USSR
WENDEL	WENDELSTEIN, GFR

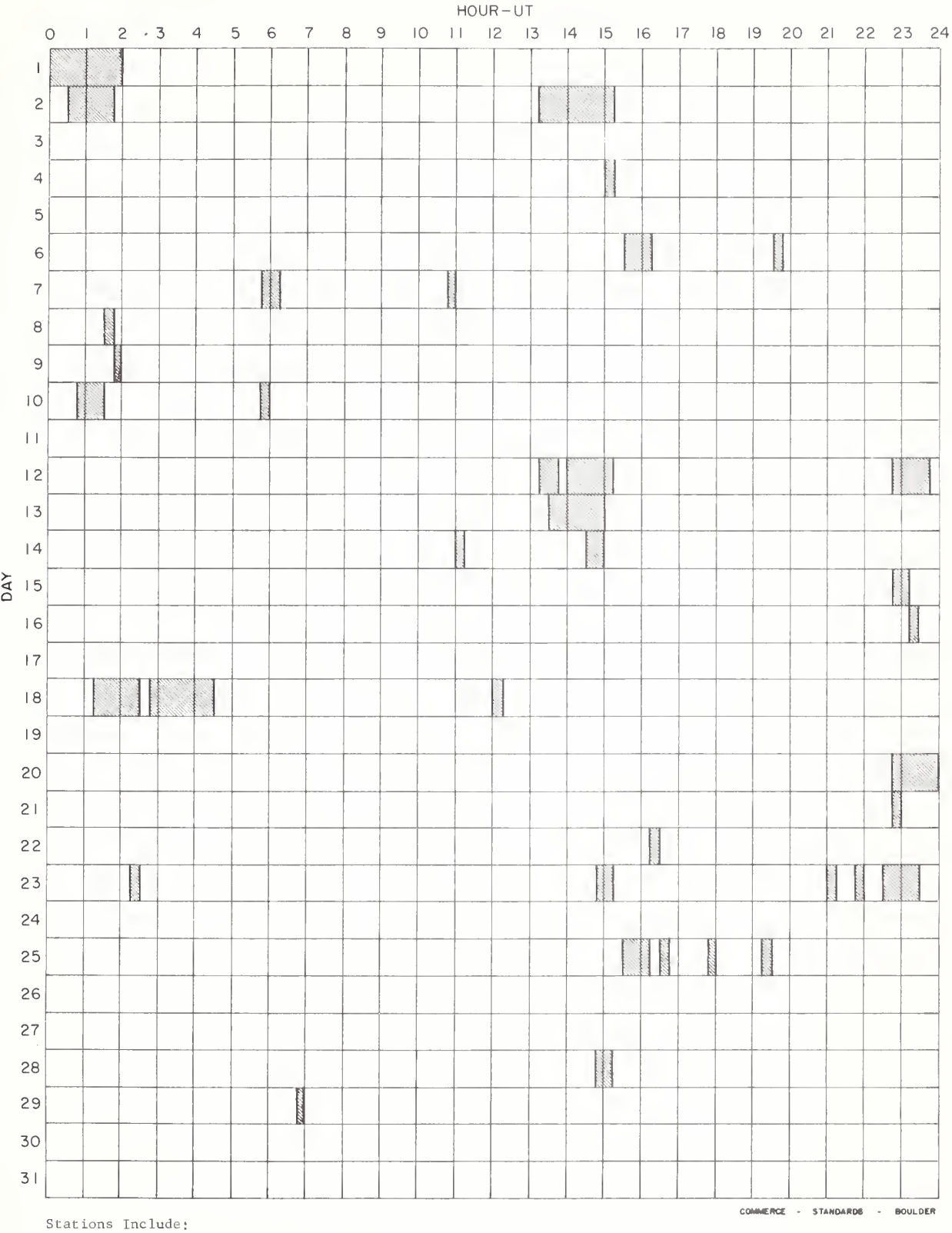
ALL VALUES IN THE MAXIMUM INTENSITY COLUMN FOR SAC PEAK ARE ARBITRARY UNITS (0-40) AND FOR LOCKHEED ARE ARBITRARY UNITS (10-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

SEE DESCRIPTIVE TEXT PUBLISHED NOVEMBER 1961 FOR DEFINITION OF CORRECTED AREA VALUES LISTED FOR CLIMAX, HAWAII, LOCKHEED AND SACRAMENTO PEAK.

E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.

INTERVALS OF NO FLARE PATROL OBSERVATIONS

JANUARY 1962



Stations Include:

Abastumani	Capetown	Crimee	Ikomasan	McMath-Hulbert	Nizmir	Uccle
Alma-Ata	Capri (German)	Herstmonceux	Kiev KO	Meudon	Ondrejov	Voroshilov
Arcetri	Capri (Swedish)	Honolulu	Kodaikanal	Mitaka	Sacramento Peak	Wendelstein
Bakou	Climax	Huancayo	Lockheed	Nizamiah	Tachkent	

IONOSPHERIC EFFECTS OF SOLAR FLARES

SHORT WAVE RADIO FADEOUTS
SUDDEN COSMIC NOISE ABSORPTION
SUDDEN ENHANCEMENTS OF ATMOSPHERICS
SUDDEN PHASE ANOMALIES
SOLAR NOISE BURSTS AT 18 Mc

MARCH 1962

	MARCH 1962	UNIVERSAL TIME START	END	MAX	SWF TYPE	IMP	IMPORTANCE ABS	SCNA	SEA	SPA	BUR	WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
	01	1030	1053						2+			1	NE	
	01	1030	1140							2			KU	
	01	1035	1132		G	2						2	NE JU	
	01	1634	1720		S	2+						5	BE WS BO PR FM CW* CW** CW*** HU	1634
	01	1636	1730	1648						83			BO+ KU	
	01	1638	1720	1644			50	2				4	BO MC RE	
*	01	1639	1640								1	1	MC	
	01	1641	1734						2			5	BO MC DU TR A3 A1 A5 A9 A10	
	01	1645	1647								1	1	MC	
	01	1654	1656								1	2	BO MC	
	13	1445	1640	1505						99			BO+ PU	
	13	1448	1622		S	3						5	PR DA HU NE MC CW** CW*** WS BE	1448E
	13	1448	1622										EN CW* BO	
*	13	1450	1545	1500			20	1				3	BO MC RE	
	13	1450	1555						2			5	BO MC NE A3 TR DU A1 A5	
	16	0353	0448		S	2+						5	TO AD CW+	0356E
	16	0355	0440						1			1	TY	
	17	1933	1953	1944					1			1	A3 A1 A5	
	17	1940	2010		S	1						5	MC WS AN PR BE HU	1936
	17	1940	2015	1944			20	1				5	BO MC RE HA	
	17	1940	2155	1949							2	2	BO MC	
	18	1340		1410			30	1				1	RE	
*	18	1349	1434		S	2						5	PU PR JU HU	
	18	1350	1435							2			PU	
	18	1351	1434						1+			1	PU	
	25	1237	1327							2			KU	
*	25	1238	1306		S	2						1	JU	1254E
	25	1238	1334	1242					1+			3	DU A3 TR KU A5	
	31	0838	0853		S	2						2	PU LI	0835E
	31	0838	0853							2			PU	

COMMERCE - STANDARDS - BOULDER

\+ No Known Flare Patrol

* Sudden Enhancement of Signal 18 kc
Observed by A5.

TR Tortosa

SOLAR RADIO EMISSION

OUTSTANDING OCCURRENCES

APRIL 1962

ARO--OTTAWA

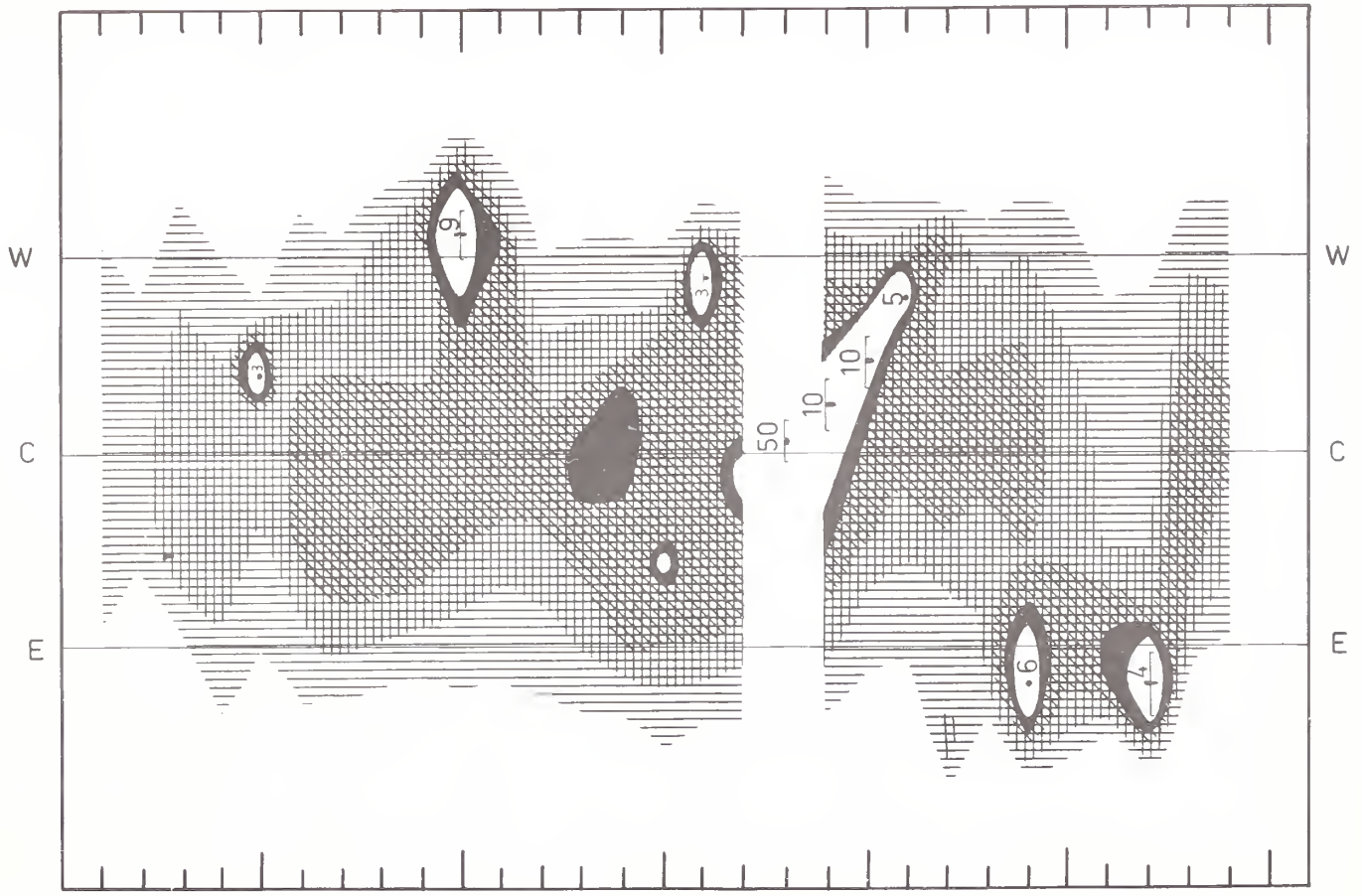
2800 MC

Apr. 1962	Type	Start UT	Duration Hrs:Mins	Maximum			Remarks
				Time UT	Peak Flux	Mean Flux	
1	3 Simple 3	1715	2 30	1740	3	1.5	
12	3 Simple 3 A	1719	46	Indet.	1.3	0.7	
	1 Simple 1	1720	1.5	1720.8	1.5	0.8	
12	6 Complex f	2148	33	2212	150	21	
	4 Post Increase A		39		2	1	
	1 Simple 1 f	2246	4	2247	7	3.5	
14	3 Simple 3 A	1902	1 48	1933	7	4	
	2 Simple 2 f	1913	17	1919	59	9	
15	1 Simple 1 f	1329	4	1331	4	2	
15	6 Complex f	1716.5	6	1719.3	10	3	
15	1 Simple 1	1943	4	1944.3	5	2	
15	1 Simple 1 f	2241	5	2243.8	4	1.3	
17	2 Simple 2	1444.7	2.6	1445.9	10	4	
17	2 Simple 2	2252.5	7.5	2253.2	55	11	
18	3 Simple 3 A f	1734	4 54	1845	25	12	
	2 Simple 2	1800	11	1803.5	20	5	
18	2 Simple 2 f	1852.8	4.2	1854.8	10	4	
18	2 Simple 2 f	1901	4	1903.5	9	5	
19	3 Simple 3 A	1710	1 08	1746	3	1.5	
	1 Simple 1	1742.3	1.7	1742.7	5	2	
19	2 Simple 2	1935	8	1936.3	165	32	
	4 Post Increase A		2 32		5	2	
	1 Simple 1	1955	2	1955.3	3	1	
20	3 Simple 3	1328	16	1335	2	1.2	
20	3 Simple 3 A	1832	4 28	2017	12	-	
	2 Simple 2 f	1957.3	11.7	1959	72	13	
21	3 Simple 3	2002	1 25	2035	4	2.7	
22	3 Simple 3 A f	1342	6 06	1624	37	15	
	6 Complex f	1437	13	1443.5	42	17	
	1 Simple 1 f	1532	9	1535.5	7	4	
	6 Complex	1613.5	29.5	1624.2	45	23	
25	1 Simple 1	1133.5	1.5	1134	3	1	
25	3 Simple 3 f	1253	13	1255	3	1.4	
25	1 Simple 1	2058.5	2.5	2059.7	2	1	
25	1 Simple 1	2155	2	2156	2	1	
26	6 Complex	1205	12	1209.8	13	3	
27	3 Simple 3 A f	1344	1 07	1356	4	2	
	2 Simple 2 f	1405	24	1413	175	17	
28	3 Simple 3 A f	2021	23	2030	3	1.3	
	1 Simple 1 f	2026.8	1	2027.3	7	2.5	
30	3 Simple 3 f	1155	50	1222	2	1.4	
30	3 Simple 3	1252	53	1304	2	1	

COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATIONS

Nançay APRIL 1962 169 Mc



COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION

APRIL 1962

BOULDER

108 Mc.

Apr. 1962	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
1	3	0039.1	0040.0	1.8	3
1	3	0043.1	0044.0	1.0	2
1	3	2304.0	2304.8	0.9	1
2	3	0024.8	0025.2	0.8	1
2	3	2127.8	2127.8	0.3	1
3	3	0001.1	0001.2	0.8	2
6	3	2345.4	2346.0	0.7	2
10	1	1235 E	-	763 D	2
10	3	1243.7	1243.9	0.9	2
10	3	2317.9	2318.0	1.3	3
11	3	0017.2	0017.4	0.7	2
11	3	0035.0	0035.5	0.9	3
12	3	1719.2	1720.9	2.2	2
12	9a	2147.8	2150.9	11.1	3
12	9b	2158.9	2212.3	14.6	3
12	6	2214	-	186 D	2
13	2	2136.2	2137.2	2.1	2
16	6	1500 E	-	624 D	2
17	1	1438 E	-	647 D	2
17	2	1525.5	1526.2	3.3	2
18	6	1223 E	1630	783 D	3
19	1	1222 E	-	241 D	1
19	6	1623	1103.4	580 D	2
19	3	1743.1	1743.7	1.5	2
19	8	2339.0	2344.8	7.4	3
20	6	1220 E	-	788 D	2
20	8	2001.5	2006.0	6.7	3
21	6	1219 E	-	790 D	2
21	8	1920.0	1920.1	6.0	2
21	9a	2224	-	11	3
21	9b	2235	-	23	3
21	3	2309	2310.8	4.8	3
21	3	2316.2	2316.9	2.8	2
22	4	1511.0	1511.6	126	2
25	3	1526.2	1527.0	2.8	2
27	9	1412.3	-	50.7	3
27	2	2300.5	2304.3	6.1	2
28	4	1556.5	1557.1	122	2
28	2	2023.5	2027.2	7.5	2
30	8	2238.9	2242.4	6.1	3

COMMERCE - STANDARDS - BOULDER

NOMINAL TIMES OF OBSERVATION

APRIL 1962

BOULDER

108 Mc.

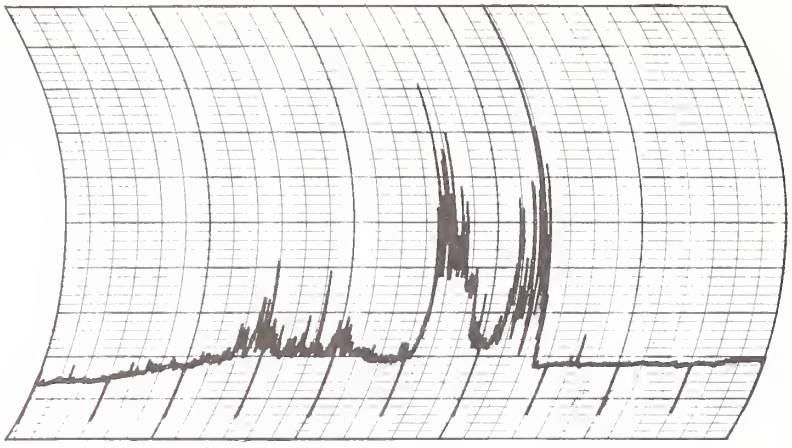
Apr. 1962	U.T.	Apr. 1962	U.T.
1	1250-0109	16	1500-0124
2	1248-0110	17	1438-0125
3	1246-0111	18	1223-0126
4	1245-0112	19	1222-0127
5	1243-0113	20	1220-0128
6	1242-0114	21	1219-0129 I 2115-2154
7	1240-0115	22	1510-0130
8	1239-0116	23	1216-0131
9	1237-0117	24	1215-0132 I 1710-1757
10	1235-0118	25	1213-0133
11	1234-0119	26	1212-0134
12	1232-0120	27	1211-0135
13	1231-2338	28	1209-0136
14	- -	29	1607-0137
15	- -	30	1207-0138

COMMERCE - STANDARDS - BOULDER

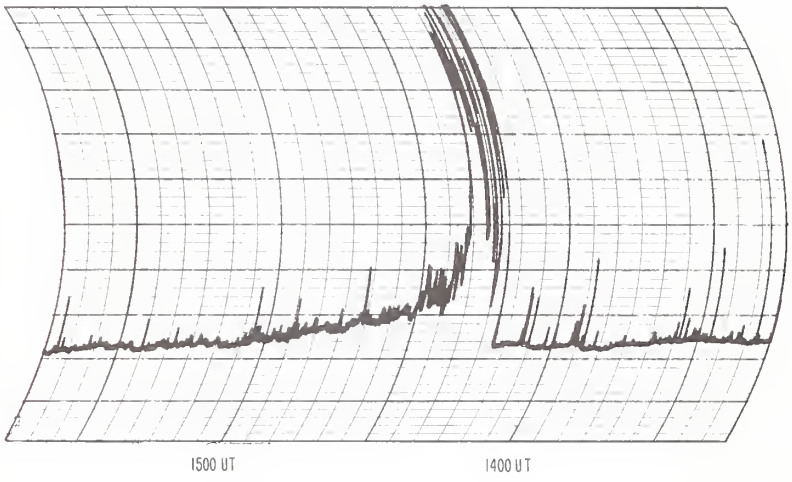
SOLAR NOISE BURSTS

APRIL 1962

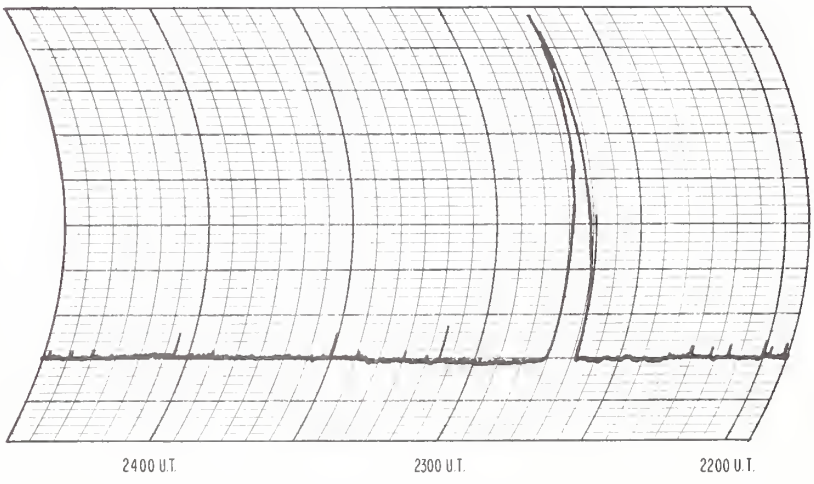
BOULDER 108 Mc.



APRIL 12, 1962



APRIL 27, 1962



APRIL 30, 1962

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

APRIL 1962

HAO BOULDER 7.6-41 MC

Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Intensity	
1 Apr	III	2339.15-2339.30	1	22 - 41
2	III	1513.15-1513.30	1-	24 - 41
	III	1552.45-1553	1	26 - 41
	III	1553-1553.45	1-	27 - 41
	III	1749-1749.15	1-	27 - 41
	III	1841.45-1842	1-	29 - 41
	III	2005-2005.30	1	27 - 41
	III	2029.15-2029.30	1-	33 - 41
	III	2030.15-2030.30	1-	27 - 41
	III	2031-2031.15	1-	33 - 41
	III	2113.30-2114.30	1	27 - 41
	III	2127.30-2129	2	25 - 41
	III	2156.30-2157	1-	29 - 41
	III	2201.15-2202.15	1	26 - 41
	III	2203-2203.45	1	26 - 41
	III	2259-2259.30	1+	25 - 41
	III	2315.30-2316.45	1+	22 - 41
	III	2326.30-2328.30	1+	23 - 41
	III	2350.45-2351.15	1+	25 - 41
	III	2354-2354.15	1	31 - 41
3	III	1426.45-1427.45	1-	23 - 33
	III	2108.30-2109.15	1-	22 - 33
	III	2258-2300	1	16 - 38
	III	2407.15-2409.15	1+	20 - 41
	III	2410.30-2411	1	22 - 41
5	III	1647.15-1648.45	1-	11 - 35
	III	1654.30-1655.30	1	12 - 41
	III	1754.15-1755	1-	24 - 41
	III	1914.15-1914.45	1	21 - 41
6	III	1919.45-1920	1-	26 - 41
	III	2328.15-2329.45	1	22 - 41
7	III	1240.45-1242	1-	21 - 41
10	III	1750-1750.15	1-	27 - 41
	III	1851.30-1852	1-	27 - 41
	III	1909.15-1909.45	1+	21 - 41
	III	1911.30-1912.15	1-	28 - 41
	III	1917.45-1918.15	1	22 - 41
	III	1939.45-1940.30	1+	21 - 41
	III	2034.30-2035	1-	30 - 41
	III	2056.30-2056.45	1	28 - 41
	III	2059-2059.15	1+	23 - 41
	III	2100.30-2101	1	22 - 41
	III	2130.30-2131.15	1+	23 - 41
	III	2206-2206.30	1+	21 - 33
	III	2206.45-2207.15	1+	21 - 41
	III	2207.15-2208	1	21 - 41
	III	2208.30-2209.15	1	21 - 41
	III	2250-2252	1+	21 - 41
	III	2318-2319	2	12½-41
	III	2321.45-2322.30	2	23 - 41
	III	2413.15-2413.45	1+	24 - 41
	III	2434.45-2435.45	1+	21 - 31
11	III	1626.45-1628	1	20 - 41
12	III	1549.30-1550	1-	22 - 41
	III	1552.15-1552.45	1	18 - 41
	III	1640-1643.30	1	21 - 41
	II	1648-1651	3	26 - 41
	III	1654-1655	2	9 - 41
	II	1658-1707	2	22 - 41
	IV	1710-1925	2	22 - 41
	III	1718.45-1722.30	2+	9 - 41
	III	1756.30-1757	1+	22 - 41
	III	1809.30-1809.45	1	22 - 31
	III	1904.45-1905	1+	21 - 41

Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Intensity	
12 Apr	III	2024.30-2025	1-	23 - 41
	III	2029-2030	2	9 - 41
	III	2030.45-2032.15	1+	20 - 41
	III	2138.45-2141.30	1	18 - 41
	continuum	2148.15-2156	2+	8½ - 41
	II	2154-2207	3	21 - 41
	IV	2202-2335	2+	21 - 41
	III	2211.30-2214.15	2+	11 - 41
	III	2336.45-2337	1	23 - 35
	III	2350.45-2351	1	26 - 41
	III	2351.30-2352.15	2-	16 - 41
	III	2352.15-2353.15	1+	22 - 41
	continuum	2352-2403	2-	21 - 41
	continuum	2408-2422	2	16 - 41
	III	2420.15-2422	2-	21 - 41
	III	2435.30-2436	1	24 - 41
13	III	1516.30-1517	1-	28 - 41
	continuum	1520-2500	1-	21 - 41
	III	1902.45-1903.30	1+	20 - 41
	III	2135.45-2136.45	2	8 - 41
	III	2137.45-2138.45	2-	11 - 41
	III	2139.30-2141	2	10 - 41
	III	2301.30-2304.30	1+	20 - 41
14	continuum	1455-2000	1-	21 - 41
	III	1917.15-1921	2+	7.6- 41
	III	2027-2027.30	1+	20 - 41
	III	2036-2036.30	1	24 - 41
	III	2040.30-2041.15	1	19 - 36
	III	2120.30-2121	1-	23 - 41
	III	2130-2130.15	1-	21 - 41
	III	2133.30-2133.45	1-	25 - 41
	III	2250-2250.45	1+	21 - 41
	III	2310.30-2310.45	1	23 - 40
	III	2317.30-2318.15	1+	16 - 41
	III	2400.45-2401.30	1-	22 - 41
	III	2500.45-2501.30	1	22 - 41
15	III	1539.15-1539.45	1-	22 - 33
	III	1617.15-1617.45	1-	24 - 41
	continuum	1640-1810	1-	18 - 41
	III	1749.30-1750.30	2-	9 - 41
	continuum	1810-2500	1	21 - 41
16	continuum	b1506-1800	1	8 - 41
	continuum	1800-a2515	1+	8 - 41
17	continuum	b1459-a2525	3	7.6- 41
	III	1523.45-1527	2	7.6- 41
	III	2007.15-2009	2	7.6- 41
	III	2157.45-2159	2	11 - 41
18	continuum	b1225-a2515	3	7.6- 41
19	continuum	b1243-a2500	3	7.6- 41
	III	1732.45-1733.45	2	7.6- 41
	III	1735.15-1736.45	2	7.6- 41
	III	1812.45-1814	2	7.6- 41
	III	2339-2342.30	2	16 - 41
	III	2432.15-2433	1+	20 - 41
	III	2442-2442.30	1+	22 - 41
20	continuum	b1515-a2500	2	21 - 41
	III	1534.45-1535.15	1+	23 - 41
	III	2000-2004.45	2+	7.6- 41
	III	2005.15-2007.30	2+	7.6- 41
	II	2016-2020.30	1+	29 - 41
21	continuum	1530-1800	1-	21 - 41
	III	1613.45-1614.30	1+	7.6- 41
	III	1624-1625	1+	8 - 41
	III	1631.45-1632.15	1	17 - 41

SOLAR RADIO EMISSION

SPECTRUM OBSERVATIONS

APRIL 1962

HAO BOULDER 7.6 - 41 Mc

Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Intensity	
21 Apr	III	1721.30-1722.30	1+	22 - 41
	III	1723.30-1724	1+	21 - 41
	III	1805.45-1806	1	21 - 41
	III	1820.30-1821.45	1	21 - 41
	III	1920-1923.15	2+	7.6- 41
	III	1924-1924.45	1+	16 - 41
	III	1925-1926.30	2	7.6- 41
	continuum	1932-1953	1-	24 - 41
	III	1932.15-1932.45	1-	24 - 41
	III	1936.15-1938	1-	23 - 41
	III	1952-1952.30	1	21 - 41
	III	2006.15-2007	1	21 - 41
	III	2009-2013.15	2	7.6- 41
	III	2013.45-2014.45	1	18 - 41
	II	2024.45-2034.30	2	24 - 41
	III	2101-2102.30	2	12 - 41
	III	2109.45-2110.15	1+	25 - 41
	III	2110.30-2111	1	25 - 41
	III	2114.15-2115.30	2-	12 - 41
	III	2116-2116.30	1+	16 - 41
	III	2131.15-2132.30	2-	12 - 41
	III	2132.15-2132.45	1-	27 - 41
	III	2135.30-2135.45	1	23 - 41
	III	2140.45-2142	2-	16 - 41
	III	2159.30-2200	1	22 - 41
	III	2211.30-2212	1-	22 - 41
	III	2235.30-2237	2	7.6- 41
	III	2241-2241.45	2-	16 - 41
	III	2302.15-2302.45	1	23 - 41
	III	2318.45-2319.30	1+	16 - 41
	III	2320.45-2321.15	1-	21 - 41
	III	2325.15-2326.15	2-	12 - 41
	III	2326.30-2327.15	1	22 - 41
	III	2332.15-2333.15	1+	21 - 41
22	III	1511.15-1513.45	2-	7.6- 41
	II	1553.30-1609.15	2	20 - 41
	IV	1612-1930	1+	19 - 41
	III	1615.15-1615.30	1+	21 - 41
	III	1620.30-1622.30	1+	23 - 41
	III	1625-1628.30	2-	16 - 41
	III	1715.15-1718.30	2-	7.6- 41
	III	1813.15-1814	1	16 - 41
	III	1814.30-1815.15	1+	7.6- 41
	III	1815.30-1816.15	1+	9 - 41
	III	1816.45-1817.30	1+	9 - 41
	III	2004.45-2005.15	1	23 - 41
	III	2145.45-2146.15	1	18 - 41
	III	2217.45-2219.15	1	21 - 41
	III	2339.30-2340	1	20 - 41
23	III	1613-1613.30	1-	22 - 41
	III	1838.15-1839.30	1+	7.6- 41
	III	2126-2126.15	1-	21 - 41
24	III	2503.45-2504	1-	27 - 41
25	III	2000-2000.15	1	23 - 41
	III	2008-2009.30	2-	8.5- 41
	III	2013-2013.30	1-	24 - 41
	III	2019-2019.45	2-	16 - 41
	III	2044-2046.30	1+	7.6- 41
	III	2046-2046.45	1	19 - 41
	III	2139.30-2141.45	1+	11 - 41
	III	2155.30-2158	2	9 - 41
	III	2329.15-2330	1+	21 - 41
	III	2339-2340	2	21 - 41
	III	2353.30-2354	2-	20 - 41

Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Intensity	
25 Apr	III	2355-2356	2-	20 - 41
	III	2459-2459.45	1+	21 - 41
	III	2522-2524.45	2-	16 - 41
26	III	1644-1644.30	1-	23 - 41
27	III	1412.15-1415	2+	11 - 41
	III	1415.15-1416.30	2+	11 - 41
	III	1416.30-1418.15	2	11 - 41
	II	1418-1426	2	16 - 41
	IV	1420-1635	2	22 - 41
	III	1745.15-1745.30	1-	24 - 41
	III	1745.30-1745.45	1-	24 - 41
	III	1810.15-1810.45	1	9 - 41
	III	1856.45-1857	1-	23 - 41
	III	1900-1900.15	1-	25 - 41
	III	1901-1901.15	1-	25 - 41
	III	1905.30-1905.45	1-	22 - 41
	III	1913-1913.15	1	23 - 41
	III	1914-1914.45	1	23 - 41
	III	1920-1920.30	1-	23 - 41
	III	1933-1933.15	1-	30 - 41
	III	1942.15-1942.30	1	23 - 41
	III	1943.45-1944.30	1	23 - 41
	III	1951-1951.15	1-	22 - 41
	III	2008.30-2008.45	1-	22 - 41
	III	2016.30-2016.45	1-	22 - 41
	III	2019.30-2019.45	1-	24 - 41
	III	2020.45-2021	1-	24 - 41
	III	2022.30-2022.45	1-	24 - 41
	III	2042.45-2043.15	1+	7.6- 41
	III	2044-2044.45	1+	7.6- 41
	III	2049.15-2050	1+	7.6- 41
	III	2105-2105.15	1-	24 - 41
	III	2106.15-2106.30	1-	24 - 41
	III	2224.45-2225	1-	23 - 41
	III	2230-2230.30	1	19 - 41
	III	2231.15-2231.30	1	10 - 41
	III	2300.30-2305.45	2	12 - 41
	III	2354.15-2354.30	1-	24 - 41
	III	2454-2454.15	1-	25 - 41
	III	2505.45-2506	1	22 - 41
	III	2516-2517.30	1	22 - 41
28	III	1508.30-1509	1-	7.6- 31
	III	1552.30-1552.45	1+	20 - 41
	III	1553.45-1554	1	20 - 41
	III	1556.30-1557.45	2	12 - 41
	continuum	1626-1650	1-	22 - 41
	continuum	1804-1852	1-	20 - 41
	III	1804.30-1804.45	1+	7.6- 41
	III	1850.30-1851.45	1+	7.6- 41
	III	2012.45-2013	1-	21 - 37
	III	2023.45-2028	2	7.6- 41
	III	2028.30-2028.45	1+	21 - 41
	III	2029-2029.15	1+	21 - 41
	III	2029.45-2030	1	21 - 41
	III	2030-2030.45	2	7.6- 41
	III	2031-2031.30	1+	7.6- 41
	III	2133.30-2133.45	1-	18 - 41
	III	2221-2221.15	1-	21 - 41
	III	2252.45-2253	1-	21 - 41
	III	2254.45-2255.45	1-	21 - 41
	III	2351-2351.15	1-	25 - 41
	III	2353-2353.15	1-	24 - 41
	III	2358-2358.15	1	24 - 41
	III	2423.45-2424	1-	22 - 41

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

JANUARY–FEBRUARY 1962

Fort Davis **25-580 Mc.**

1962	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC	REMARKS
		TYPE	TIMES U.T	INT		
Jan. 1	1417-2350					
Jan. 2	1414-2350					
Jan. 3	1414-2350					
Jan. 4	1414-2355					
Jan. 5	1414-2355					
Jan. 6	1415-2355					
Jan. 7	1415-2355					
Jan. 8	1414-2355					
Jan. 9	1415-2355					
Jan.10	1415-2355					
Jan.11	1413-2400					
Jan.12	1413-2400					
Jan.13	1414-2400					
Jan.14	1413-2400					
Jan.15	1413-2400					
Jan.16	1413-2400					
Jan.17	1413-2400					
Jan.18	1413-2400					
Jan.19	1413-1732 1734-2400					2226 V
Jan.20	1414-2400					
Jan.21	1414-2400					Weak I throughout day
Jan.22	1413-2400					Weak I throughout day
Jan.23	1413-1956 2259-2400	II	1500.2-1506	2	75-<50	Weak I during day. ~1600-1956 Many III 50-25 Mc
Jan.24	1413-2400					
Jan.25	1549-2400					
Jan.26	1413-2400					
Jan.27	1413-2400					
Jan.28	1413-2400					
Jan.29	1401-2400	I	1720-~1820	1	300-100	
Jan.30	1401-2400	IIIG IIIG	2156.5-2200 2319-2322	2 2-3	300-100 400-50	
Jan.31	1400-2400					
Feb. 1	1400-2400	I	1400-2400	1	250-50	
Feb. 2	1400-2400	IIIG	2217-2218	2	580-400	
Feb. 3	1401-1800 1800-2355 2359-2400	I	1401-~1700	1-2	580-50	Weak I throughout day
Feb. 4	1551-1730 2012-2400					
Feb. 5	1400-2400					
Feb. 6	1400-2400	IIIG IV** I	1625-1626 2113-2200 2156-2247	2-3 1-3 1-2	450-100 450-150 250-25	**Pulsating structure
Feb. 7	1400-1703 1846-2400					
Feb. 8	1400-2400					
Feb. 9	1400-2400					
Feb.10	1402-2400					
Feb.11	1400-2400					
Feb.12	1400-2400					
Feb.13	1400-2400					
Feb.14	1400-2400					

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

FEBRUARY – MARCH 1962

Fort Davis

25-580 Mc.

1962	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC	REMARKS
		TYPE	TIMES U.T	INT		
Feb.15	1400-2400					
Feb.16	1400-2400					
Feb.17	1401-2400					
Feb.18	1400-2400					
Feb.19	1400-2400					
Feb.20	1400-2400	IIIG	2304-2307	2	150-25	
Feb.21	1400-2400	IIIG	1832-1834	2-3	500-25	
		IIIG	1918-1923	2-3	500-25	
		IIIG	2200-2202	3	580-25	
		IIIG	2207-2210	3	580-25	
Feb.22	1401-2400	IIIG	1928-1931	2-3	75-25	Weak I throughout day
Feb.23	1346-2400	I	1354-~1700	1-2	200-100	IV is possibly high frequency component of noise
		I	~ 2000-2400	1-3	200-25	storm (RXB inoperative)
		IV	2201-2400	2	580-320	
Feb.24	0000-0020	I	0000-0020	2	200-50	
	1346-2400	IV	0000-0017	2	580-320	
		I	1352-2400	2-3	250-25	
Feb.25	1345-2400	I	1350-2400	2-3+	500-25	
		IIIG	1641-1642	2	150-25	
		IIIG	1911-1913	2	200-25	
		IIIG	2259-2300	3	580-250	
Feb.26	1345-2400	I	1345-~1840	1-2	250-50	Weak I throughout day
		IIIG	1633-1637	2	580-50	
Feb.27	1345-2400	I	1345-~2116	1-2	300-50	Weak I throughout day
		IIIG	1359-1403	2	300-50	
		IIIG	1522-1523	2	400-180	
		IIIG	1716-1719	2	580-100	
		IIIG	2142-2148	1-2	580-50	
		IIIG	2256-2259	2-3+	580-100	
Feb.28	1345-2400	IIIG	1807-1810	2	580-25	
Mar. 1	1345-2400	IIIG	1636-1642	2-3+	580-25	
		II	1641.1-1659	3	320-<25	
		IV	1753-1828	2-3	250-125	
Mar. 2	1345-2400	IIIG	1353.5-1356	2	200-50	1354 V
		IIIG	2342-2344	2-3	280-45	
Mar. 3	1345-2400	I	1345-~1620	1	300-50	Weak I throughout day
Mar. 4	1345-2400					
Mar. 5	1345-2400					1946 V
Mar. 6	1345-1830					
	1856-2400					
Mar. 7	1345-2400					
Mar. 8	1600-2400					
Mar. 9	1331-2208					
	2221-2400					
Mar.10	1330-2400					
Mar.11	1331-2400					
Mar.12	1330-2400					
Mar.13	1330-2400	IIIG	1450-1458	2-3	580-25	
		Uncl.	1456-1500	2	150-50	
Mar.14	1330-2400					
Mar.15	1330-2400					
Mar.16	1330-2400					Weak I throughout day
Mar.17	1331-2400	I	~ 1520-~1620	1	300-100	Weak I throughout day
		IIIG	1558-1559	2	220-20	
		IIIG	1607-1610	2	220-25	
		IIIG	1640-1641	2	200-25	
		IIIG	2307-2312	3	250-25	2308 V
Mar.18	1330-2400	IIIG	2129-2134	3	350-220	Weak I throughout day
		IIIG	2138-2140	3	280-50	
		I	2220-2300	1	280-150	
Mar.19	1330-2400					Weak I throughout day
Mar.20	1330-2400					
Mar.21	1330-2400					Weak I throughout day

SOLAR RADIO EMISSION
SPECTRUM OBSERVATIONS

MARCH 1962

Fort Davis

25-580 Mc.

1962	OBSERVING HOURS	IMPORTANT BURSTS			FREQUENCY RANGE MC	REMARKS
		TYPE	TIMES U.T	INT		
Mar.22	1330-2400	IIIG	1559-1602	3	580-60	
		IIIG	1605-1606	3	580-50	
		IIIG	1732-1742	3	300-25	
		IIIG	2301-2304	2-3	280-50	
Mar.23	1330-2355					Weak I throughout day
Mar.24	1330-2209 2314-2400					Weak I throughout day
Mar.25	1330-2400					1906 V
Mar.26	1331-2400	IIIG	1424-1429	2-3	240-50	
Mar.27	1330-2400	IIIG	1609-1610	2	500-220	
		IIIG	1615-1617	2	400-75	
		IIIG	1948-1949	2	560-240	
		IIIG	2323-2325	2	560-400	
Mar.28	1331-2046 2158-2400					
Mar.29	1315-2400					
Mar.30	1315-2400					
Mar.31	1315-2400					

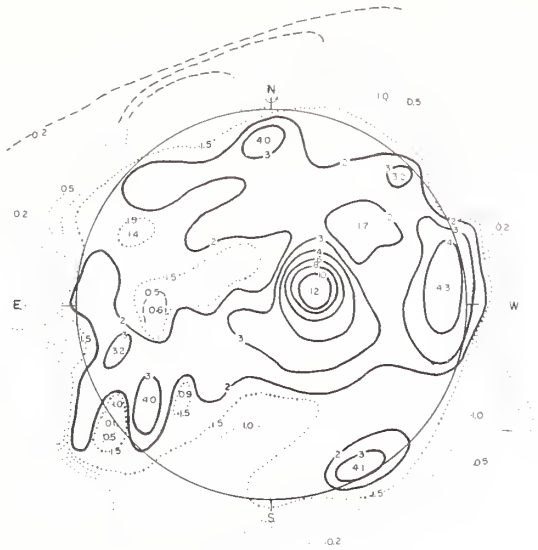
COMMERCE - STANDARDS - BOULDER

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

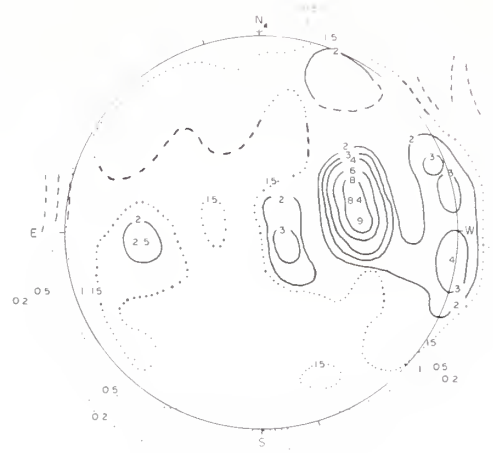
FEBRUARY 1961

STANFORD

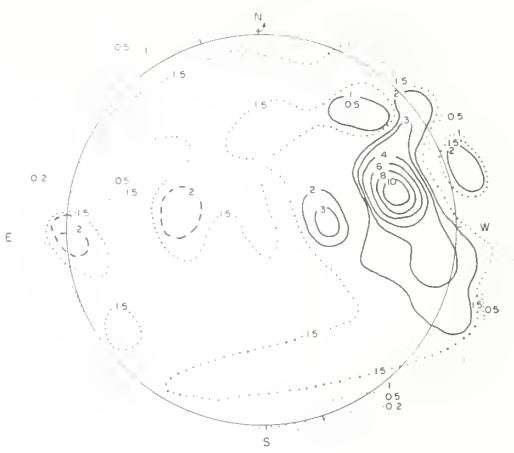
9.1 cm



1961 FEBRUARY 10, $20^h - 21^h$ UT
CONTOUR BRIGHTNESS UNIT = 15,300°K



1961 FEBRUARY 11, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 17,900°K



1961 FEBRUARY 12, $19^h - 20^h$ UT
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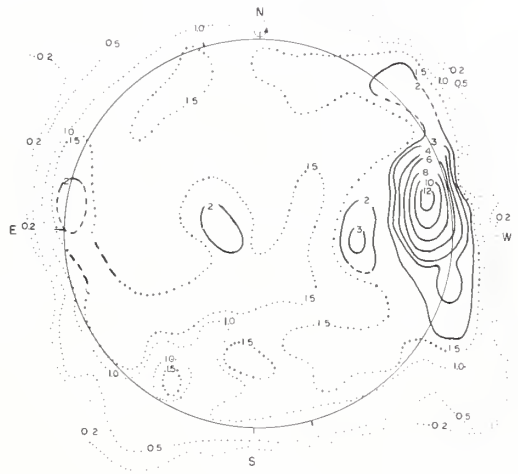
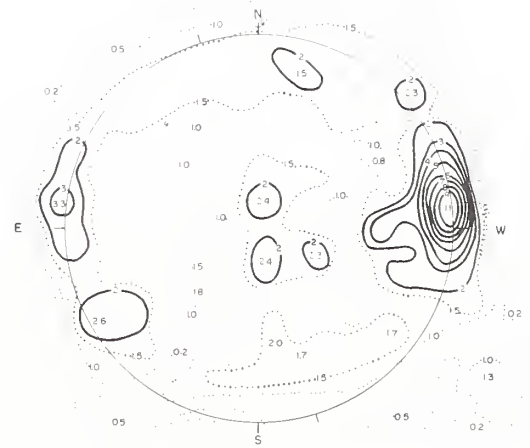
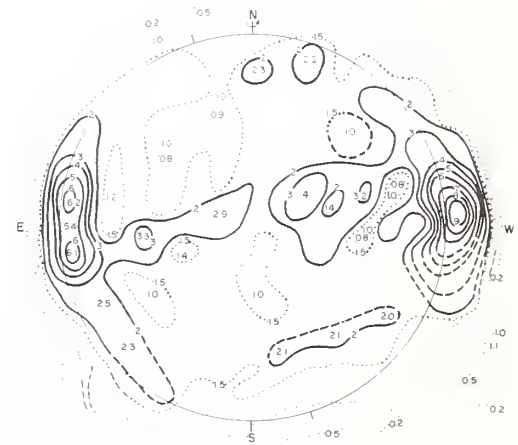


1961 FEBRUARY 13, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 17,400°K



1961 FEBRUARY 14, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 17,800°K



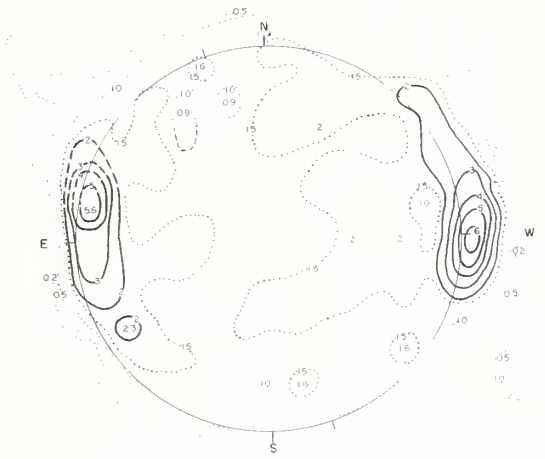
1961 FEBRUARY 15, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 16,000°K

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

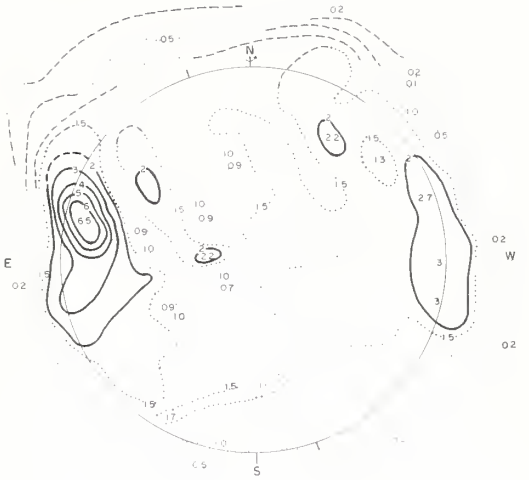
FEBRUARY 1961

STANFORD

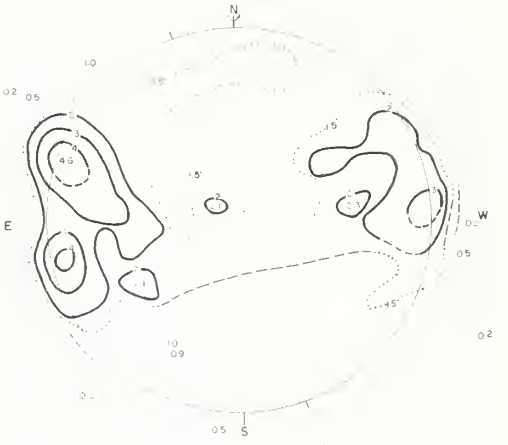
9.1 cm



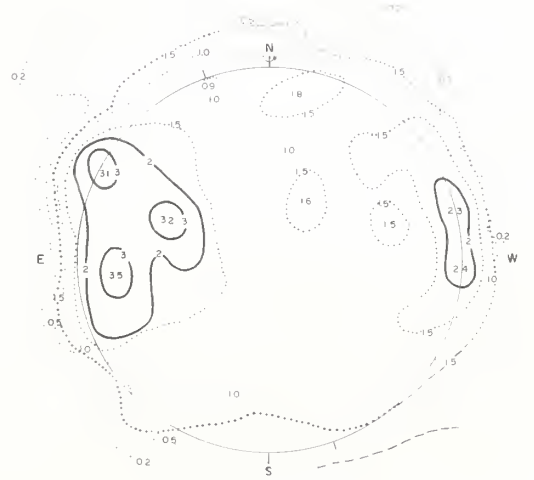
1961 FEBRUARY 16, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 17,500 °K



1961 FEBRUARY 17, 20^h - 21^h UT
CONTOUR BRIGHTNESS UNIT = 17,600°K



1961 FEBRUARY 18, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 17,600 °K



1961 FEBRUARY 19, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 20,200°K

1961 FEBRUARY 20, 20^h - 21^h UT
CONTOUR BRIGHTNESS UNIT=17,300°K

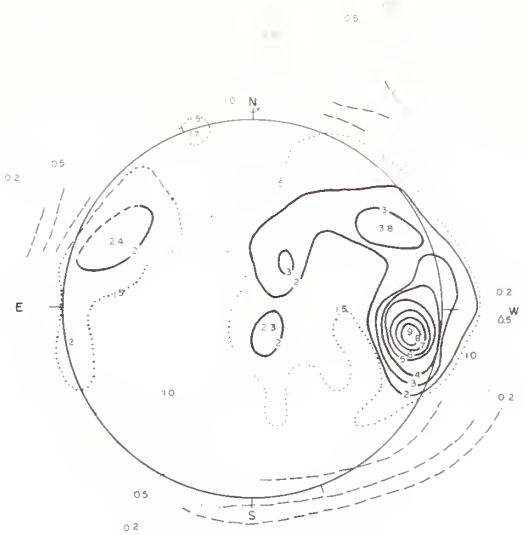
1961 FEBRUARY 21, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 15,500°K

IVk

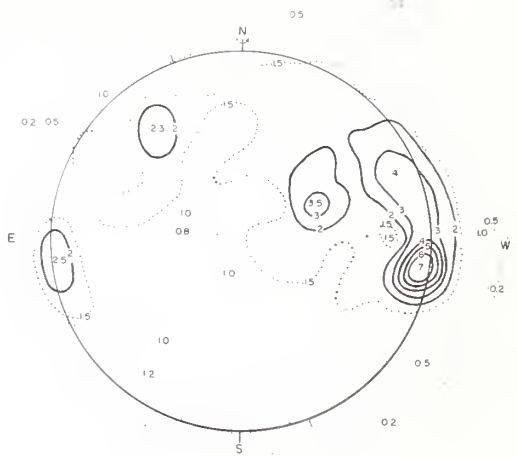
SOLAR RADIO EMISSION SPECTROHELIOGRAMS

STANFORD — FEBRUARY — MARCH 1961 — 9.1 cm

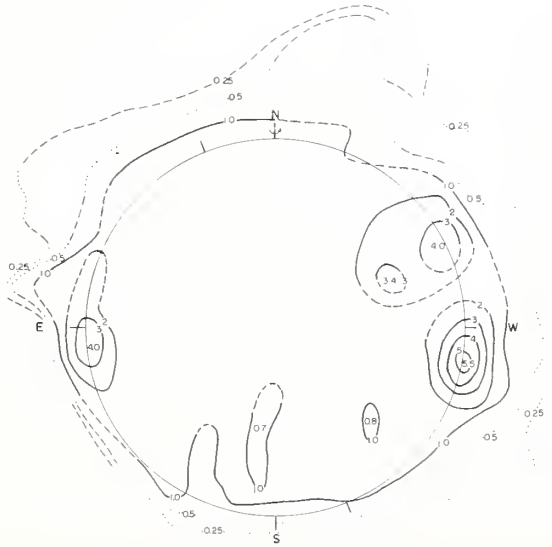
1961 FEBRUARY 23, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 19,600°K



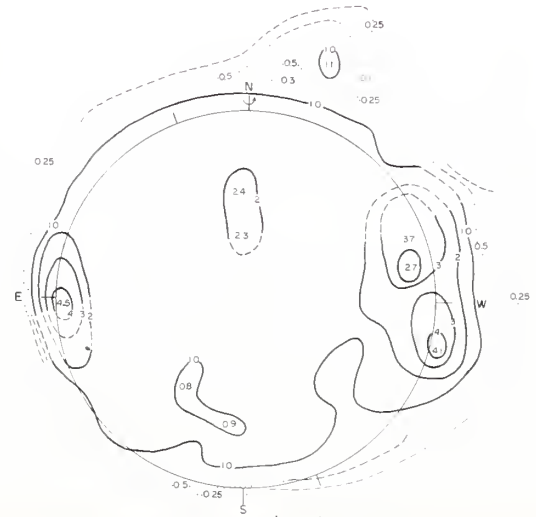
1961 FEBRUARY 27, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 19,300°K



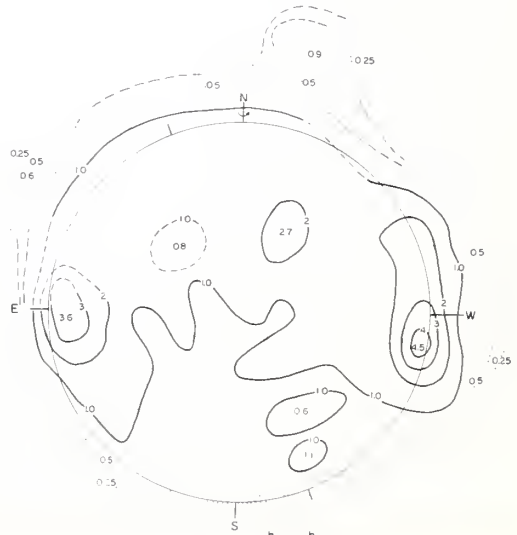
1961 FEBRUARY 28, 19^h-20^h UT
CONTOUR BRIGHTNESS UNIT = 20,400°K



1961 MARCH 1, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 19,300°K



1961 MARCH 2, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 21,000°K



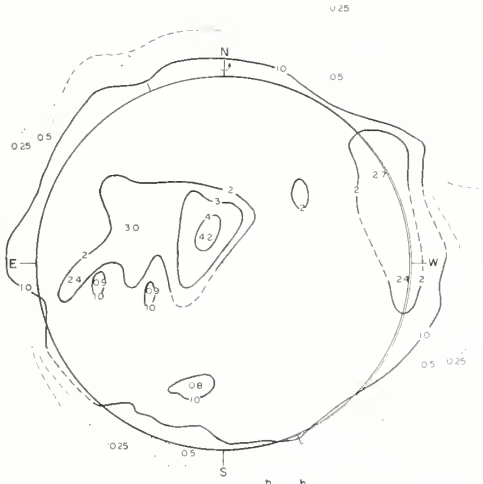
1961 MARCH 3, 19^h - 20^h UT
CONTOUR BRIGHTNESS UNIT = 25,000°K

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

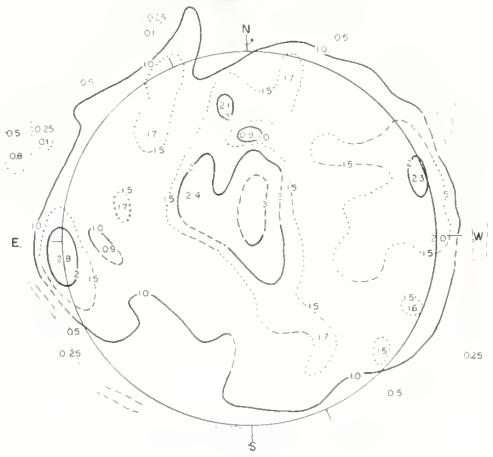
MARCH 1961

STANFORD

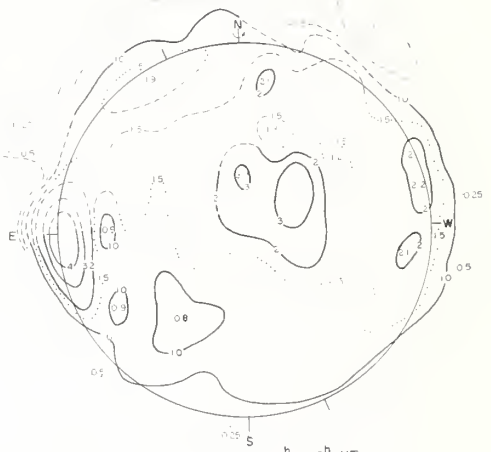
9.1 cm



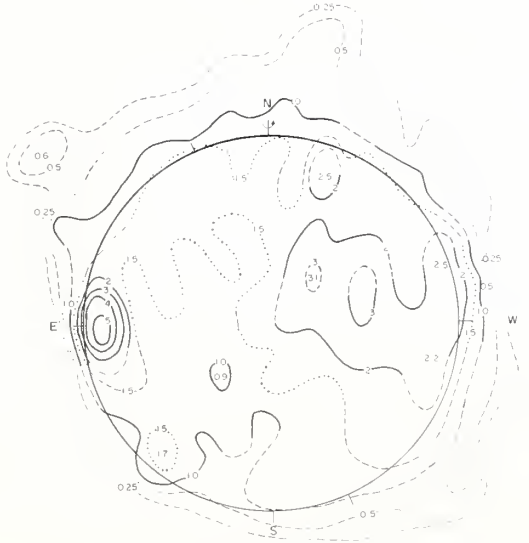
1961 MARCH 6, $20^h - 21^h$ UT
CONTOUR BRIGHTNESS UNIT = 20,000 °K



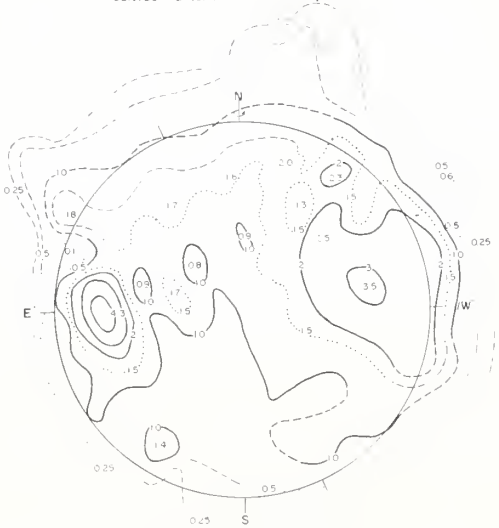
1961 MARCH 7, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 22,000 °K



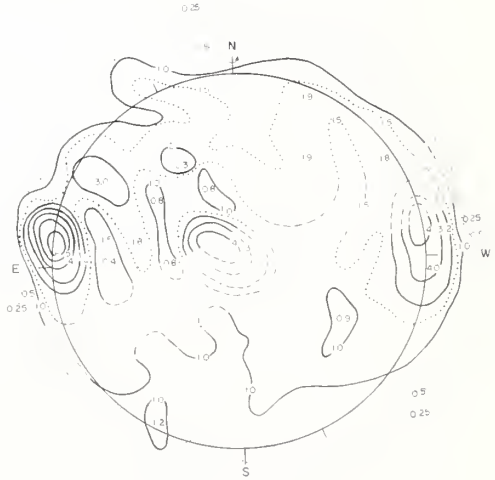
1961 MARCH 8, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 20,600 °K



1961 MARCH 9, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 18,400 °K



1961 MARCH 10, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 22,400 °K



1961 MARCH 13, $20^h - 21^h$ UT
CONTOUR BRIGHTNESS UNIT = 21,000 °K

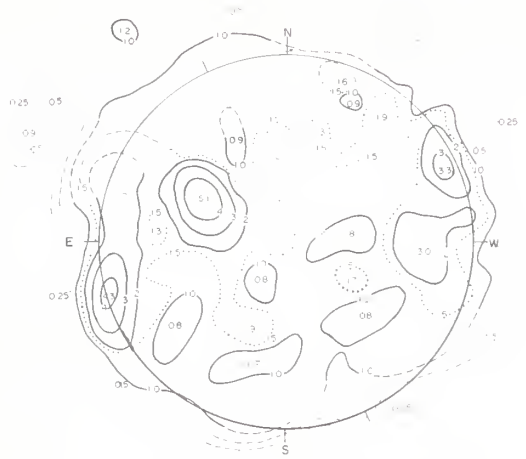
IVa1

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

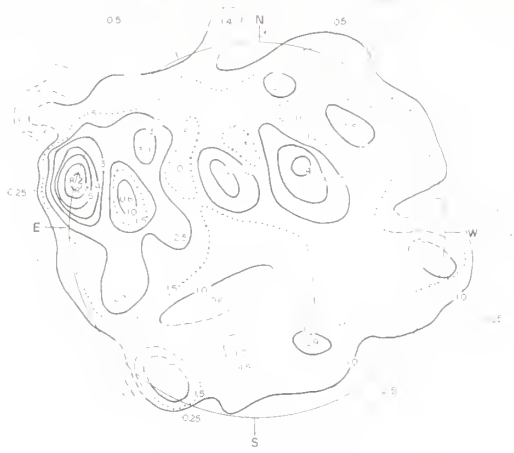
MARCH 1961

STANFORD

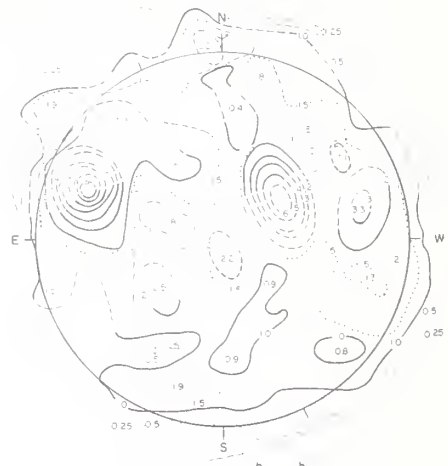
9.1 cm



1961 MARCH 17, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 21,000°K



1961 MARCH 20, $20^h - 21^h$ UT
CONTOUR BRIGHTNESS UNIT = 21,600°K



1961 MARCH 22, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 22,400°K

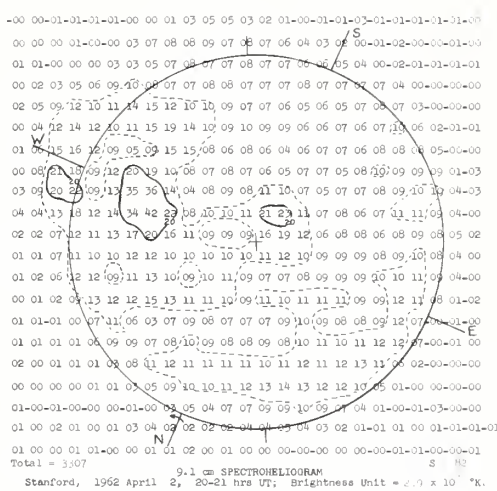
1961 MARCH 24, $19^h - 20^h$ UT
CONTOUR BRIGHTNESS UNIT = 21,200°K

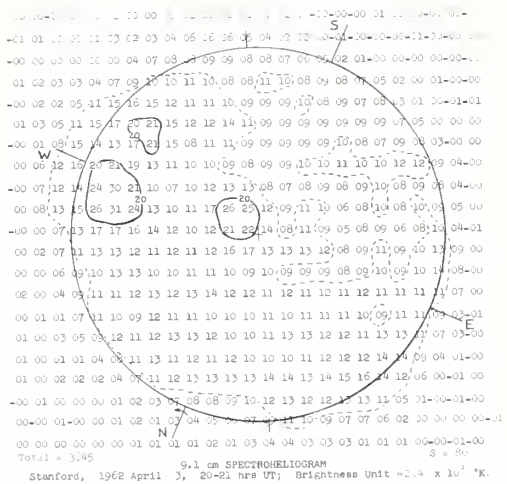
SOLAR RADIO EMISSION SPECTROHELIOGRAMS

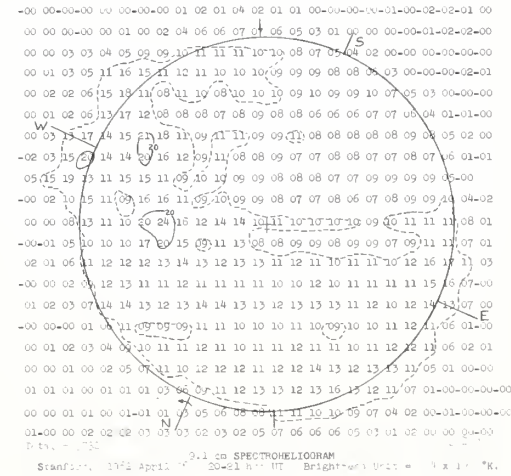
APRIL 1962

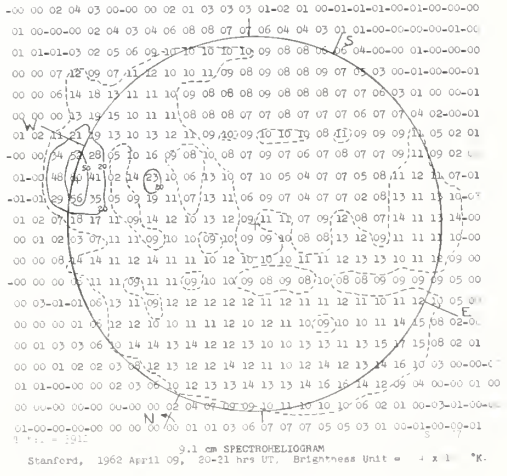
STANFORD

9.1 cm







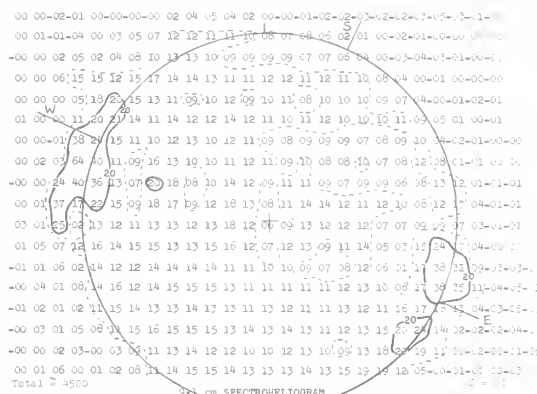


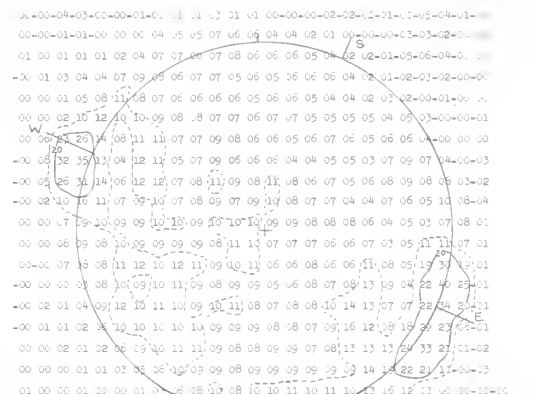
SOLAR RADIO EMISSION SPECTROHELIOGRAMS

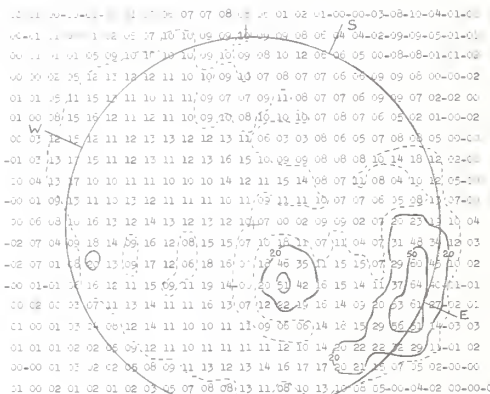
APRIL 1962

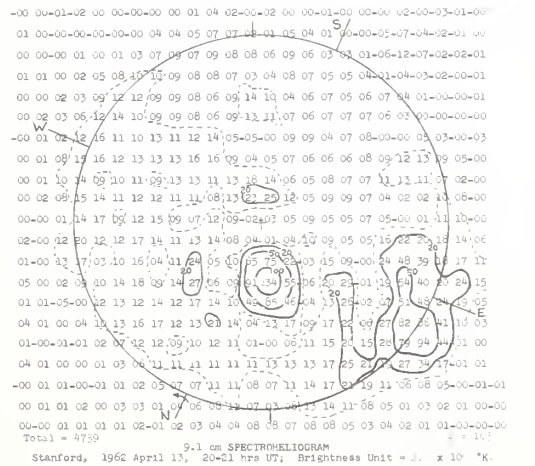
STANFORD

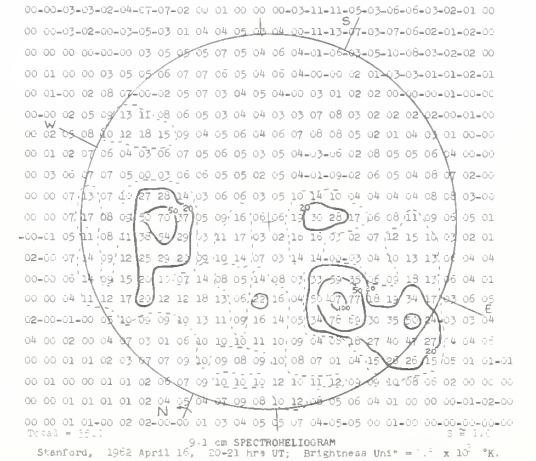
9.1 cm

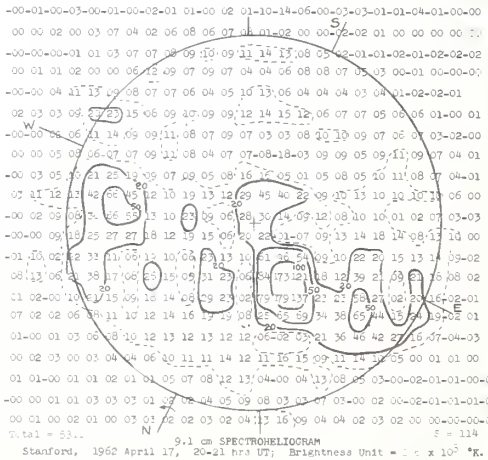

9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 10, 20-21 hrs UT; Brightness Unit = 1.2 x 10⁴ °K.
(Note. Position of prominence d... estimated.)











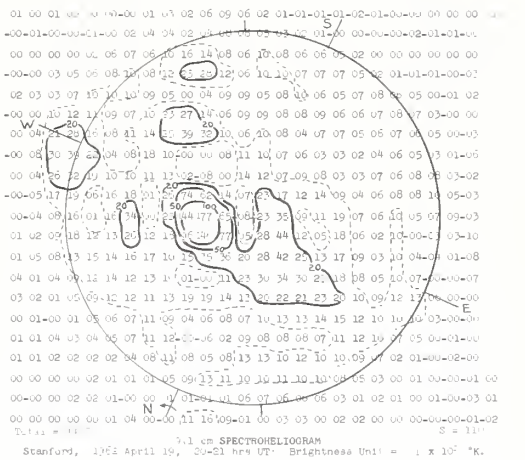
SOLAR RADIO EMISSION SPECTROHELIOGRAMS

APRIL 1962

STANFORD

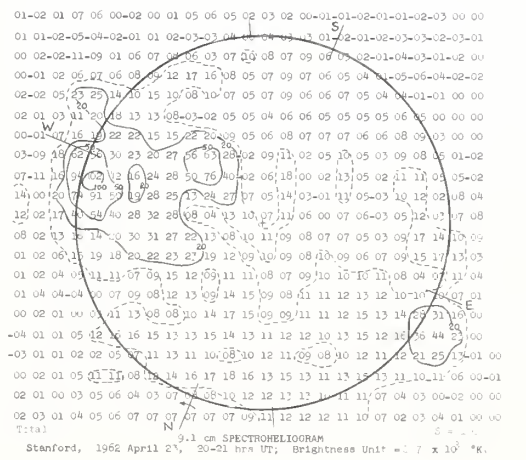
9.1 cm

9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 18, 20-21 hrs UT; Brightness Unit = 2.7 x 10³ °K.

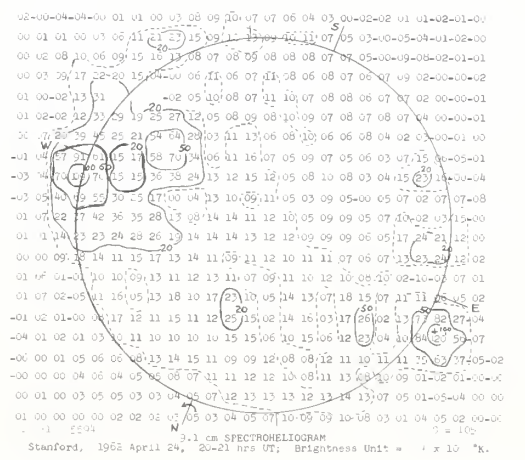


9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 19, 20-21 hrs UT; Brightness Unit = [illegible] °K.

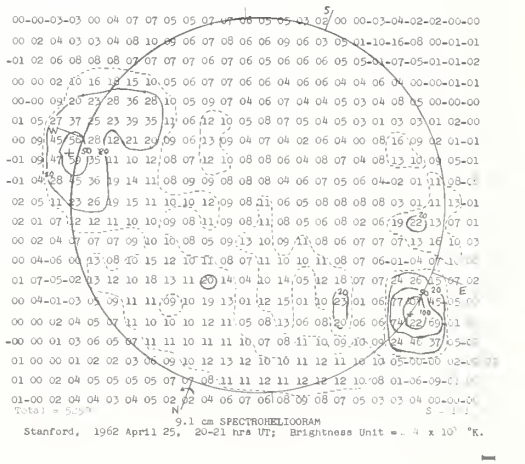
9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 20, 20-21 hrs UT; Brightness Unit = [illegible] °K.



9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 23, 20-21 hrs UT; Brightness Unit = [illegible] °K.



9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 24, 20-21 hrs UT; Brightness Unit = [illegible] °K.



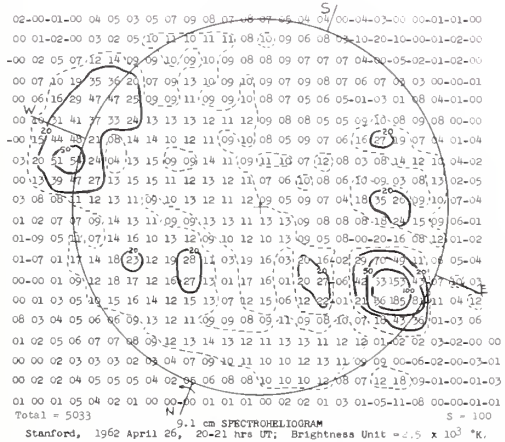
9.1 cm SPECTROHELIOGRAM
Stanford, 1962 April 25, 20-21 hrs UT; Brightness Unit = [illegible] °K.

SOLAR RADIO EMISSION SPECTROHELIOGRAMS

APRIL 1962

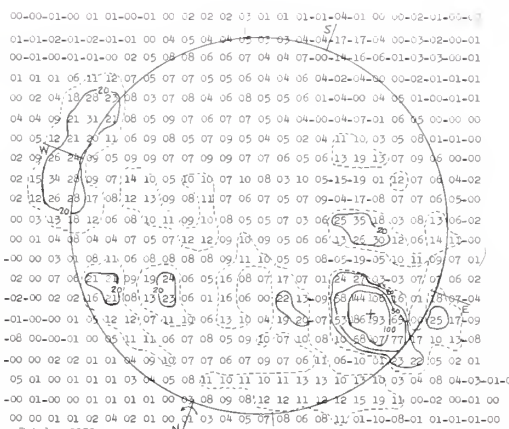
STANFORD

9.1 cm



9.1 cm SPECTROHELIOGRAM

Stanford, 1962 April 26, 20-21 hrs UT; Brightness Unit = 2.5 x 10^3 °K.



9.1 cm SPECTROHELIOGRAM

Stanford, 1962 April 27, 20-21 hrs UT; Brightness Unit = 2.6 x 10^3 °K.

9.1 cm SPECTROHELIOGRAM

Stanford, 1962 April 30, 20-21 hrs UT; Brightness Unit = 2.6 x 10^3 °K.

COSMIC RAY INDICES

Climax Neutron Monitor

IGC STATION B 305

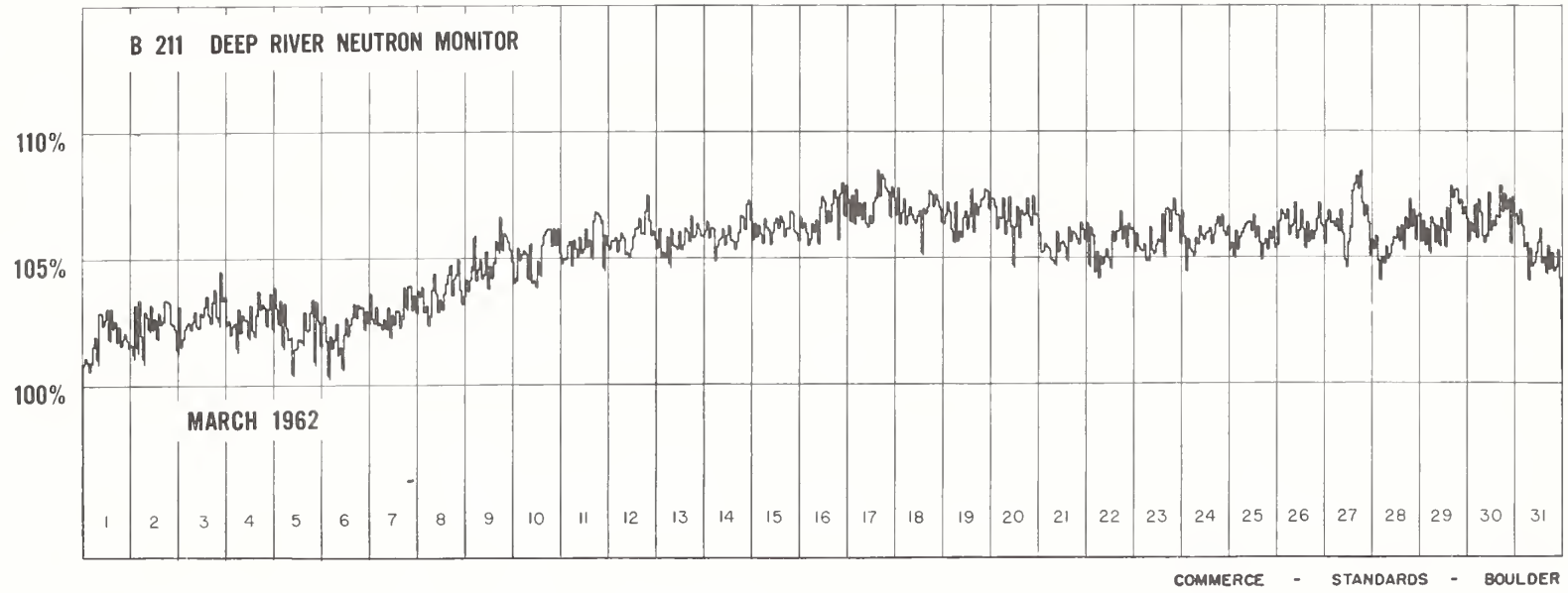
MARCH 1962

Mar. 1962	Daily average counts/hr.*	Mar. 1962	Daily average counts/hr*
1	3018.0	16	3099.6
2	3037.1	17	3105.6
3	3053.7	18	3097.0
4	3049.0	19	3099.9
5	3030.0 (36 hrs.)	20	3107.0
6	3020.9	21	3083.8
7	3037.0	22	3066.7
8	3058.3	23	3074.1
9	3093.5	24	3072.9
10	3116.3	25	3059.5
11	3101.3	26	3063.9
12	3091.2 (30 hrs.)	27	3053.2
13	3111.0 (12 hrs.)	28	3047.5
14	3102.3	29	3084.9
15	3099.0	30	3082.6
		31	3028.2

COMMERCE - STANDARDS - BOULDER

COSMIC RAY INDICES

(Pressure Corrected Hourly Totals)

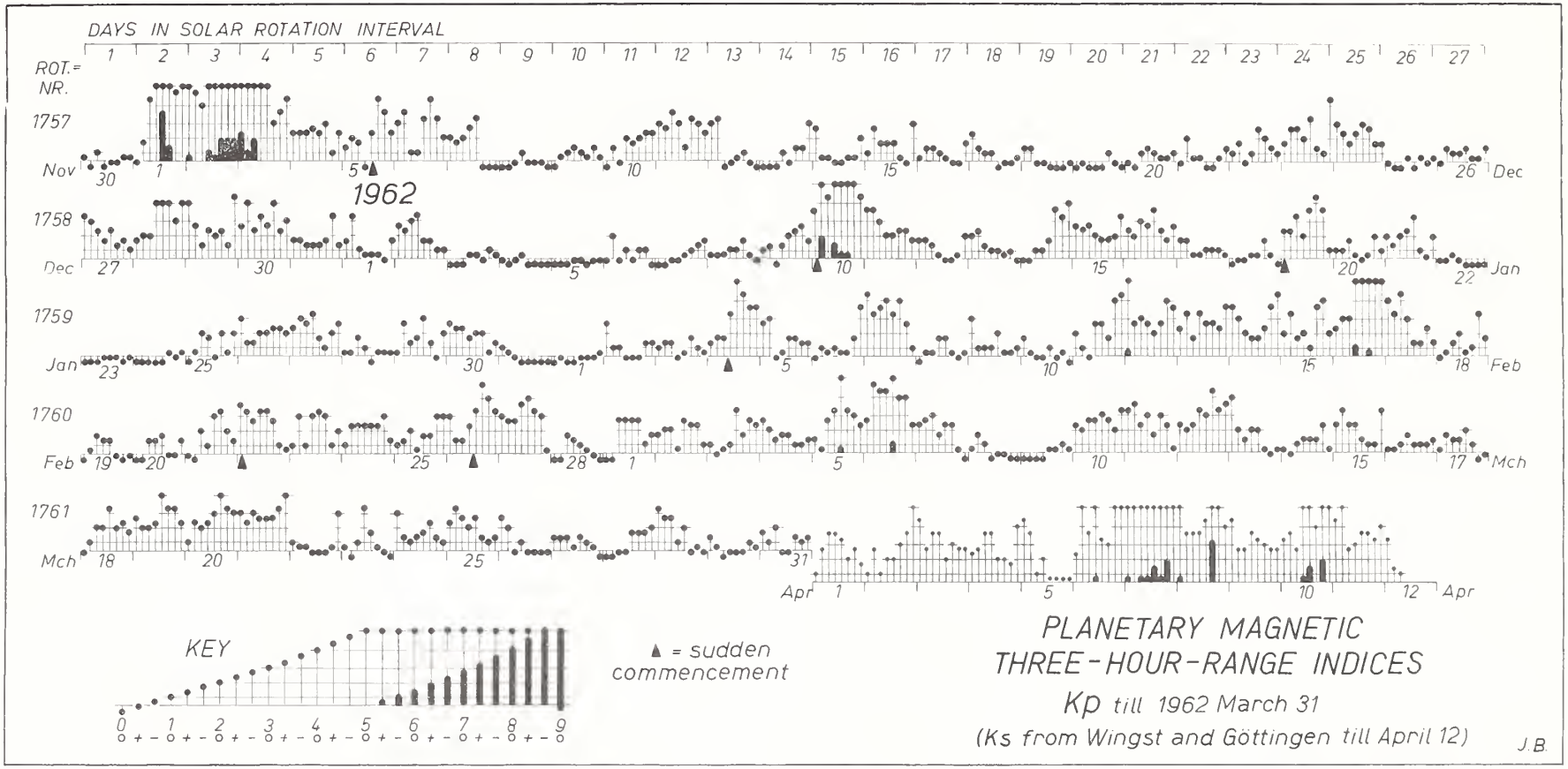


GEOMAGNETIC ACTIVITY INDICES

MARCH 1962

Mar. 1962	C	Values Kp Three hour Gr. interval 1 2 3 4	5 6 7 8	Sum	Ap	Final Selected Days
1	0.4	0o 0o 3- 3-	3- 3- 1o 2-	13+	7	Five
2	0.4	2- 2o 2o 1-	3- 2+ 2+ 1o	15-	7	Quiet
3	0.7	1o 0+ 1- 1o	3+ 2- 3- 2+	13o	7	
4	0.3	3- 2o 1+ 2-	2- 1o 1o 1+	13-	6	8
5	1.1	1+ 1- 3- 3+	5+ 3+ 3o 2+	22o	17	9
						16
6	1.4	3- 5- 4+ 4+	6- 4o 4o 2+	32o	31	27
7	0.3	2+ 3- 3o 2-	2+ 2+ 1- 0o	15o	8	30
8	0.0	1- 2- 1o 0o	0+ 0+ 0o 0o	4o	2	
9	0.0	0o 0o 0o 0o	1- 1- 1o 1-	3o	2	
10	0.8	2+ 2o 3- 3-	3o 3- 2o 3+	21-	12	
11	0.8	3+ 4- 2+ 3o	2- 3o 2+ 1-	20o	12	Five
12	1.1	2+ 2o 2+ 3+	3o 4+ 3+ 4-	24+	16	Disturbed
13	0.3	4o 2o 1+ 2o	2o 1- 0+ 1-	13o	8	
14	0.3	1- 0+ 1o 1+	1+ 1+ 2+ 1-	9o	4	5
15	0.6	2+ 3+ 2+ 2+	1+ 1o 1o 3+	17o	10	6
						12
16	0.1	1- 1- 1o 2-	1o 1o 1o 1+	8+	4	19
17	0.1	1- 2- 1+ 1+	2o 1o 0o 0+	8+	4	21
18	0.6	0+ 1o 2o 2o	3+ 2o 2+ 2-	15-	8	
19	1.0	3- 2o 2o 2+	4o 3+ 3+ 2+	22o	13	
20	0.8	1o 2+ 2o 2+	3o 4o 3+ 3o	21o	13	
21	1.0	3o 2+ 3o 3-	3- 3- 3+ 4o	24-	15	Ten
22	0.2	1o 1- 1- 0+	0+ 0+ 1- 3o	7o	4	Quiet
23	0.2	1- 0o 1o 3+	2- 1- 0+ 0o	8-	4	
24	0.2	3o 1+ 1o 1+	2- 2+ 1+ 1o	13o	7	8
25	0.5	2+ 3+ 3- 2o	3- 1+ 1o 1+	17-	9	9
						16
26	0.1	3- 2o 0+ 1o	0+ 0+ 0+ 0+	7+	4	17
27	0.1	1+ 1+ 1+ 1-	1+ 1o 1- 0o	8-	4	22
28	0.2	0o 0o 0+ 0+	2- 2- 2- 2o	8-	4	26
29	0.3	3+ 3- 3- 1o	2o 0+ 1- 0+	13o	8	27
30	0.0	1+ 1- 0o 0+	0+ 0+ 1o 1-	5-	3	28
31	0.1	2- 1o 2o 0+	0+ 1+ 1o 1+	9o	4	30
						31
Mean:	0.45			Mean:	8	

COMMERCE - STANDARDS - BOULDER


DAYS IN SOLAR ROTATION INTERVAL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
ROT.= NR.
1757
Nov 30 1 5 10 15 20 26 Dec
1962
1758
Dec 27 30 1 5 10 15 20 22 Jan
1759
Jan 23 25 30 1 5 10 15 18 Feb
1760
Feb 19 20 25 28 1 5 10 15 17 Mch
1761
Mch 18 20 25 31
Apr 1 5 10 12 Apr
KEY
0 + - 0 + - 0 + - 0 + - 0 + - 0 + - 0 + - 0 + - 0 + - 0
1 2 3 4 5 6 7 8 9
▲ = sudden commencement
PLANETARY MAGNETIC
THREE-HOUR-RANGE INDICES
Kp till 1962 March 31
(Ks from Wingst and Göttingen till April 12)
J.B.

CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

MARCH 1962

NORTH ATLANTIC

MARCH 1962	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES 00 TO 06	06 TO 12	12 TO 18	18 TO 24	SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF 00	06	12	18	WHOLE DAY INDEX	ADVANCE FORECAST (J-REPORTS) FOR WHOLE DAY, ISSUED IN ADVANCE BY 1-7 DAYS FINAL J_S	1-7 DAYS SDW J	1-3 DAYS	1-7 DAYS	GEOMAGNETIC K_{FR} HALF DAY (1)	(2)
01	6-	5-	6+	6+	5	5	7	6	6-	6		6		1	2
02	6+	6-	7-	6+	6	5	7	6	6+	6		6		2	2
03	6o	5+	7-	6+	4	4	6	6	6+	4	4	6		1	2
04	6+	6o	7-	6+	5	5	6	6	6+	4	4	6		2	2
05	6-	5-	7-	6o	6	5	6	6	6o	5	5	6		2	3
06	5+	4o	6+	6-	5	4	6	6	5o	6		6		(4)	3
07	4+	3+	7-	6+	5	5	6	6	5o	6		6		2	1
08	4+	4+	7-	6o	5	4	6	6	5+	5		5		1	0
09	6-	4+	7-	6+	5	5	7	6	6-	6		6		0	1
10	6-	5o	7-	7-	6	5	7	6	6+	6		6		3	3
11	6-	4o	6+	6o	6	4	6	6	5+	6		6		3	2
12	5+	4+	6o	6o	6	4	7	6	5o	6		6		2	3
13	5o	4+	6o	7-	5	4	6	6	5+	6		6		2	1
14	5-	4o	6+	6+	6	3	6	6	5o	5		5		1	1
15	5+	5-	7-	6o	5	4	6	6	6o	4		4		3	2
16	6-	5o	7-	7-	5	4	7	6	6+	4		4		1	1
17	6o	5-	6+	6o	6	5	7	6	6-	5		5		2	1
18	6o	5+	7-	6+	6	5	7	6	6+	5		5		2	2
19	7-	6o	7-	6+	6	6	7	6	7-	6		6		2	3
20	6o	5o	7-	7-	7	6	7	7	6+	6		6		2	3
21	6+	5o	7-	6+	6	5	7	6	6+	6		6		3	3
22	5o	4o	6+	6+	6	5	7	6	5o	6		6		1	1
23	6o	5-	6+	7-	5	5	6	6	6o	6		6		1	1
24	6+	6-	7-	7-	6	5	7	7	7-	6		6		2	2
25	7-	6-	7-	7-	7	6	7	7	7-	6		6		3	1
26	7-	6o	7-	7-	6	6	7	6	7-	6		6		1	1
27	7-	6+	7o	6+	7	6	7	7	7-	6		6		2	1
28	6+	6+	7-	7-	7	6	7	7	7-	6		6		0	2
29	6o	6-	6o	6o	6	5	7	6	6o	7		7		2	1
30	6+	5o	7-	6+	6	6	7	7	6+	7		7		0	1
31	7-	5+	6+	6+	6	6	7	6	6+	7		7		1	1
Score: Quiet Periods				P	15	12	19	24		9		12			
				S	13	10	12	7		18		17			
				U	0	0	0	0		0		0			
				F	1	0	0	0		4		2			
Disturbed Periods				P	0	5	0	0		0		0			
				S	2	3	0	0		0		0			
				U	0	1	0	0		0		0			
				F	0	0	0	0		0		0			

NORTH PACIFIC

NORTH PACIFIC 12-HOURLY QUALITY FIGURES 0700 TO 1900	1900 TO 0700	SHORT-TERM FORECASTS ISSUED AT 0600	1800	WHOLE DAY INDEX	ADVANCE FORECASTS (J_P-REPORTS) FOR WHOLE DAY, ISSUED IN ADVANCE BY 1-7 DAYS FINAL J_{PS}	1-7 DAYS SDW J_P	1-3 DAYS	1-7 DAYS	GEOMAGNETIC K_{SI} HALF DAY (1)	(2)
6	5	6	6	6	5		5		2	2
5	6	5	6	5	4		4		1	2
6	6	6	6	6	5		5		0	2
6	6	6	6	6	5		5		1	0
6	6	6	5	6	6		6		2	(4)
5	5	6	5	5	6		6		(4)	(4)
5	5	5	6	5	6		6		2	0
6	6	6	6	6	5		5		1	0
5	6	6	6	5	6		6		0	0
6	6	6	6	6	6		6		2	2
6	5	6	6	5	6		6		3	1
5	5	6	6	5	6		6		2	3
5	5	6	6	5	6		6		2	1
6	6	6	6	6	6		6		1	1
6	6	6	6	6	4		4		3	2
7	6	6	6	6	4		4		1	0
7	6	7	7	6	5		5		2	1
6	6	7	6	6	5		5		1	2
7	6	6	6	6	6		6		2	(4)
6	6	7	6	6	6		6		1	3
6	6	7	7	6	6		6		2	2
6	6	7	7	6	7		7		0	1
7	6	7	6	6	7		7		1	1
7	6	8	7	7	7		7		1	2
7	6	8	8	7	6		6		2	1
7	6	7	6	6	6		6		1	0
7	7	8	7	7	6		6		0	0
7	6	7	6	7	6		6		0	1
7	6	7	7	7	7		7		1	1
7	6	7	7	7	7		7		0	0
7	7	7	7	7	7		7		0	0
		18	19		11					
		13	11		18					
		0	1		0					
		0	0		2					
		0	0		0					
		0	0		0					
		0	0		0					
		0	0		0					

( ) Represent disturbed values
All times are Universal Time (U.T.)

COMMERCE - STANDARDS - BOULDER

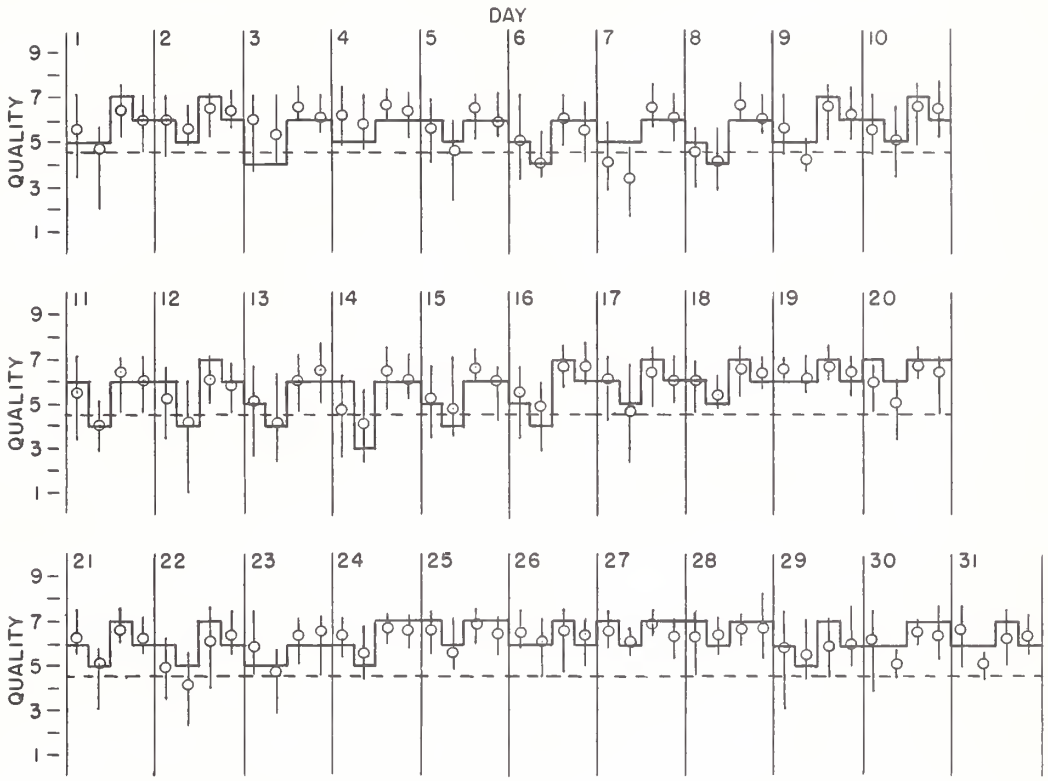
CRPL RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

NORTH ATLANTIC

MARCH 1962

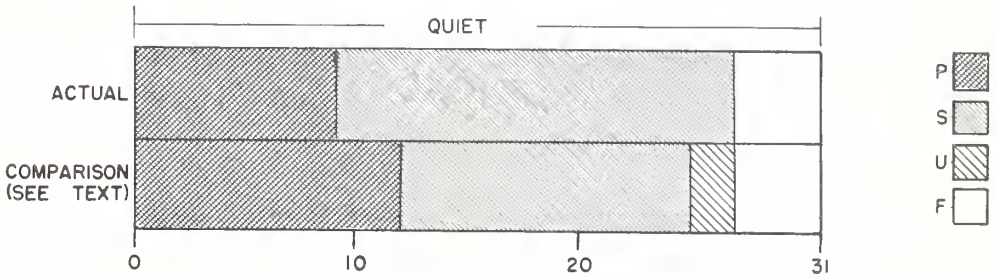
— Short-term forecast | Range of reports

o Quality figure

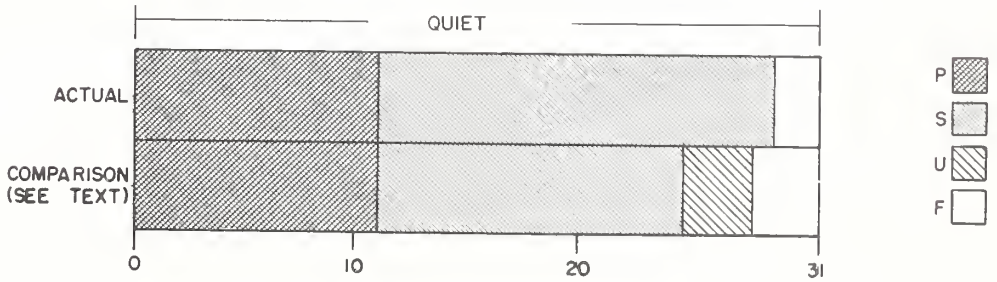


OUTCOME OF ADVANCED FORECASTS FINAL ESTIMATE

NORTH ATLANTIC

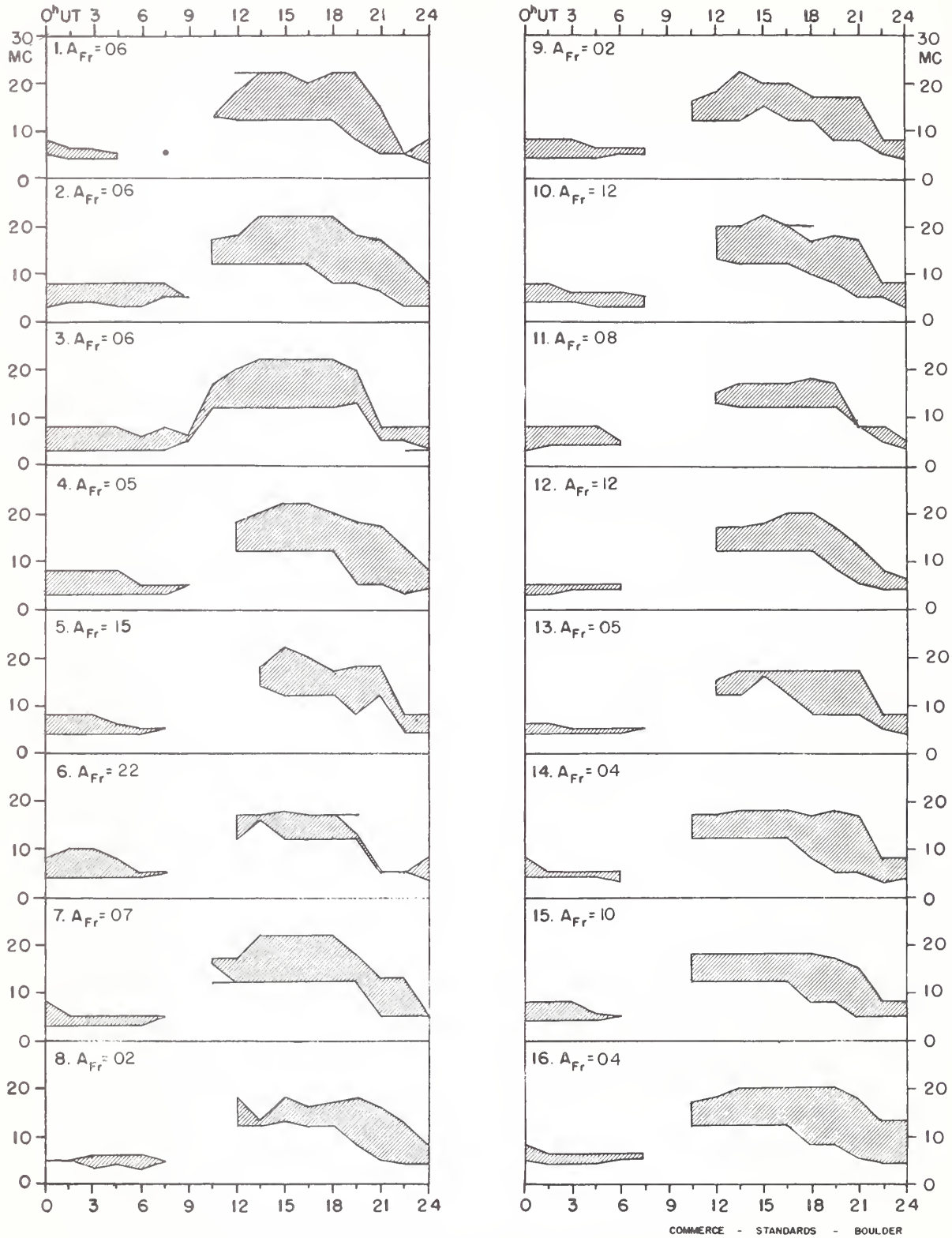


NORTH PACIFIC

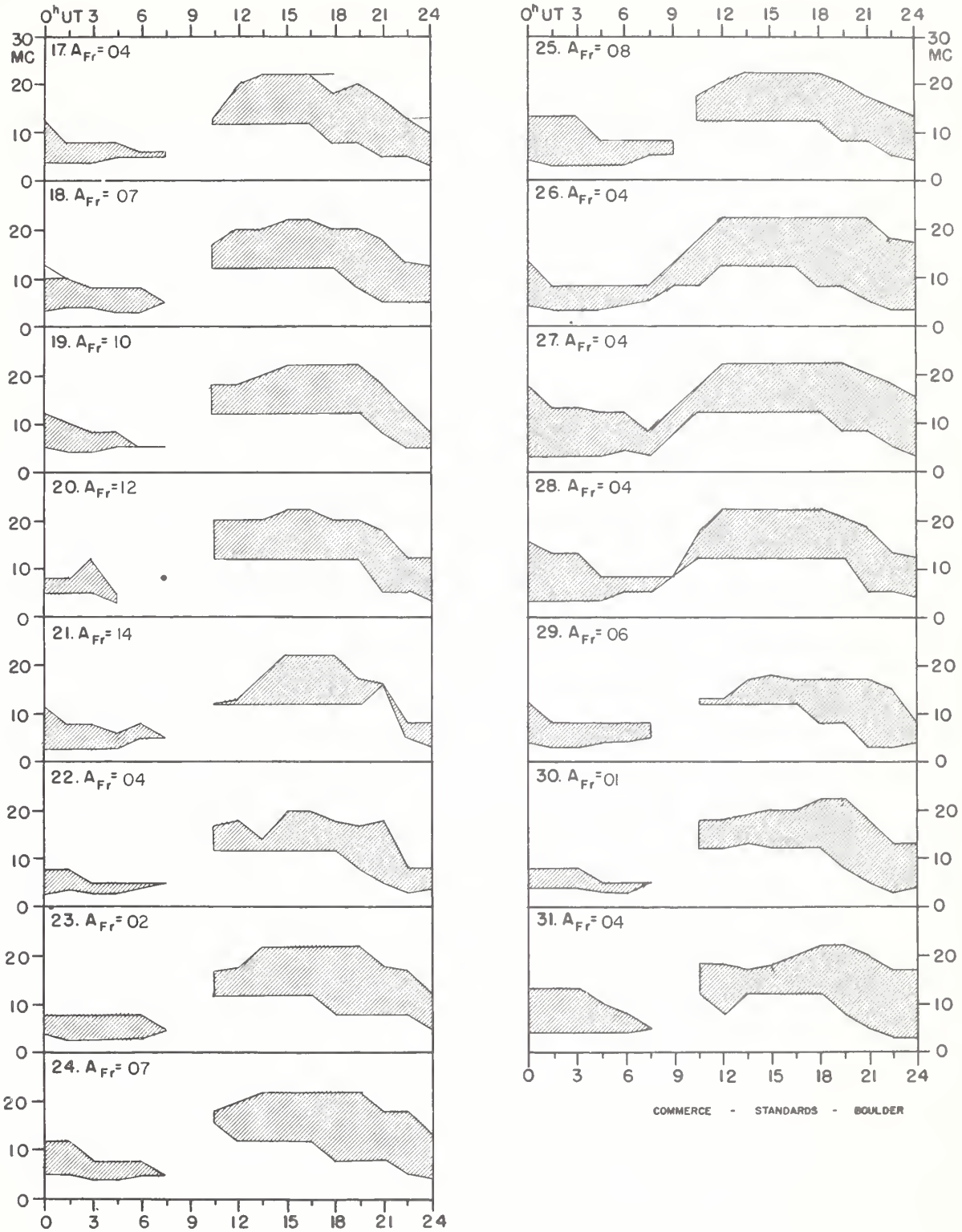


USEFUL FREQUENCY RANGES -- NORTH ATLANTIC PATH

MARCH 1962



MARCH 1962



Adapted from Observations by Deutsches Bundespost

ALERT PERIODS AND SPECIAL WORLD INTERVALS

INTERNATIONAL WORLD DAY SERVICE

APRIL 1962

Issued April 1962 Day/Time U.T.	Advance Geophysical Alert	No.	World-wide Geophysical Alert	Special World Intervals
07/0335	Ft. Belvoir, Magnetic Storm 06/19XXZ			
07/1600		165	Magnetic Storm 06/19XXZ	Start
08/1600		166		Finish
13/0230	Climax, Solar Flare, One plus 12/2150Z			
18/1930	McMath, Solar Flare, Two 18/1814Z			
19/2100	McMath, Solar Flare, One Plus 19/1943Z			
20/2100	Lockheed, Solar Flare, Two 20/1955Z			
21/2005	Lockheed, Solar Flare, One plus 21/1925Z			
22/1520	Sac Peak, Solar Flare, Two 22/1444Z			
22/1600		167	Magnetic Storm 21/15XXZ	Start
23/1600		168		Finish
27/1700	Climax, Solar Flare, Two 27/1410Z			

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